

Agricultural College



AMERICAN FARMERS' MAGAZINE.

VOL. XII.

SEPTEMBER, 1858.

No. 9.

Agricultural.

HINTS FOR THE SEASON.

SUMMER, with its scorching heat and exhausting labors, is about to give place to Autumn. September, the first and the most beautiful month of the declining year, is at hand. Frosts, to purify the atmosphere and dispel malarious effluvia, wherever existing, will soon be here. As many as a thousand gatherings of farmers and mechanics, at their annual fairs, will be held the next two months. We advise all who can to attend them. There is much to be seen and heard at these festivals, and much to be learned; and the wisest among us have not yet learned all that may be known.

Work for the Month.

Already a breathing time for the farmer has commenced. Work no longer presses, as it did in the growing season. But the man who would be as useful a citizen as any other, and as good a farmer as the best, will find no time to throw away; none to saunter, unless his health absolutely requires it; and none to be a *loafer*, at any rate. Few persons, we think, can look back on the past four months and not remember inconveniences and hindrances they have suffered from not having before

done some of those things which ought to be taken care of in what are sometimes called the lazy months; not that there are any really lazy months, but only that there are times when the farmer can control his work, instead of its controlling him, as in our rapidly-growing summers.

The Fall Harvest.

Most of our readers will probably find from the 15th to the 30th of this month the best time for shocking of corn. It will vary of course with the latitude; and every farmer knows what else to do; and if the cutting and shocking of corn comes along with other work, he is the best judge which is to be postponed to the other. The harvesting of potatoes may be attended to with much reference to the crowding of other work, but should be through with before cold weather; better very soon after the tops cease to be green. It is a very poor compliment to a farmer to have his potatoes buried under the snow over winter, or to be obliged to seize upon a winter thaw to dig them.

To let potatoes lie in the sun after being dug, is wrong. They should be put into a cool place as soon as may be.

If a little soil adheres to them, no matter. But for the labor of cleaning, we would prefer that the whole space between the tubers should be filled with moist earth, provided the cellar were cool, for in that case they would be as fresh and good in May as in October.

Land Improvements.

Digging ditches, underdraining, clearing and smoothing the land for the next year's farming, may better be done now than in spring. The soil is in a better condition to work upon, and the teams are stronger for labor now than in the spring; and besides, you will have work enough then that can be done at no other time.

If you have a stony farm, and depend upon walls for fencing, now is the time to build them. Do not forget to dig two and a half or three feet, and fill up with stones that you wish to have out of your way. A wall well laid on such a foundation will stand through two generations; and so far as it goes it is the best underdraining in the world. Lay a wall on the surface soil, and that soil becomes cold and sour, and will produce all the villainous shrubs that vex a tidy farmer out of his patience; whereas, if you lay a foundation of cobble stones three feet deep, the best rows of corn in the fields will be on each side of that wall, and they may be as near each other as if no wall was there.

Walls so laid do not diminish, but increase the productive power of the soil. We know a farmer who has cut fifty acres into one acre lots, by high walls, commenced three feet under ground—did it to get rid of the stones—and he has as many rows of corn, and as many hills on that land as if it were all in one piece; and every hill that stands within twenty feet of a wall is better for the underdraining influence of the walls. It is true that we should prefer land *that was land*, before the labor of extracting so many stones; but he could not have done better with that land. The ex-

pense of cleaning and fencing land in that way can not be less than \$75 an acre. But this can be said;—his land is in the very neighborhood of a first-rate market; it is better after being so treated than any land in its natural state; and it would sell at any hour for more than it has cost him, so that he may not be so great a fool as some of our readers, on more favored soils, may think, although he has expended \$75 or \$80 an acre in clearing and fencing, when they, perhaps, would say he could have bought pretty good land, already prepared for the plow, for less than half the money.

The Roots.

Turnips should be kept clean this month. The requisite thinning we suppose to have been done last. If it was not, it should be attended to at once. There is no use in trying to get three or four on the ground required by one. They will only be the smaller; but no heavier in the aggregate. The same is true of beets, parsnips, ruta bagas, carrots, and nearly all other root crops. These should be kept perfectly clean, and well thinned. Very few roots will produce more pounds to the acre, for having neighbors much less than a foot from them in any direction. Onions are an exception. If the rows are twelve to fifteen inches apart, the thicker in the row the better; for they will push one another out of bed, and be good-natured about it—will grow the better when hanging to mother earth only by the tendrils, provided there is pap enough for them. With the root crops generally, considerable, we believe, is lost by trying to grow too many on a given space. Carrots, for instance, eighteen inches apart in the row, only two or three in the hill, will make more work, without giving more pounds, than if eighteen inches one way and half as far the other. The boy readers, who have attended to cube root in their schools, will tell you that a carrot twelve inches

long weighs just as much as eight that are six inches long, provided the forms are similar and the densities equal.

Seeding with Wheat and Rye.

Wheat, we suppose, should have been sown in August. If not sown then, it should be put in early in this month. That good crops of wheat are often obtained by late sowing, is true, but it is true also that early sowing is oftener followed by favorable results. If you are delayed in sowing wheat till a very late day, it may be well to consider whether it would not be well to delay it till spring, and then sow spring wheat. To settle this question, you are to look at the history of wheat growing for the few past years in your region. If spring wheat, taking one year with another, has done about as well as winter wheat, there is not much to choose, but we believe that, in most parts of the country, winter wheat affords the best encouragement, and that the early sown has done better than late sown.

Rye may well be sown any time this month, or the first half of next. If sown after corn, the best way is, in cutting the corn, to lay four rows of corn in one row of gavels; then, while the corn is lying in the gavels, to plow a strip six or eight feet wide in the center of every four rows of gavels; to sow and harrow in the rye while the corn yet lies in the gavels; and then, after putting the corn in shocks on the plowed and sown portions, to plow and sow the rest. The whole field may be worked pretty smoothly in this way, and if the corn is not suffered to stand an unreasonably long time in the shock, little or no harm is done to the young grain.

Of seeding with grass seeds we spoke at length in our last number. For grounds sown with winter grain, and intended for grass somewhat permanently, it is safer and better to sow the grass seed about the time the snow leaves the ground in the spring. If sown very early in the fall, there is

danger of injury to the grain crop; if sown very late, it may be killed out; but if sown in March or April, while the ground is yet moist, it has a chance to gain full possession of the ground before the season is out, without the danger of being killed the first winter.

Sheep and Lambs.

Give attention to these. Let those designed for mutton be early fat. Animals are more cheaply fattened in warm than in cold weather. Keep the best lambs for the future improvement of the flock, having special regard to the characteristics of the sire. We will not say that hereafter sheep will be bred with more reference to the meat and less to the wool, than heretofore; but we believe that it will be an object for the farmer to increase the size of his sheep, with reference to the sale of the meat. Whatever your object, breed from the best. This selling the best lambs, calves, pigs, etc., to the butcher, because they will bring a few shillings more, is penny wise and pound foolish. That is just what has been done with the red cattle of New-England. Some think that, in spite of this foolish course, they are still the best cattle in the world on which to found new and improved herds, and we strongly incline to that opinion; but all will agree that they are not as good as they ought to be, and as they would have been but for the long continued practice of killing the best, and breeding from the inferior. That can not be a wise course in the long run. Our whole country would have been long ago head and shoulders above the suspicion of needing to import and acclimate cattle from abroad but for this one bad practice.

The Pig-pen.

The farmer would do well to assort the swine, and bring forward early those intended for pork. Pumpkins, squashes, not exactly fit for market or the table, imperfect fruit, refuse potatoes and turnips, boiled into a mash, with a little

milk, and some Indian meal sprinkled in, will fatten them faster while the weather is warm, than more expensive food after it becomes cold. Remember to let the dirty creatures have a dry, clean place to lie. They are careless of their own porcine appearance, but will do better if not too filthy. Let sufficient composting material be thrown daily into the outer pen to make at least ten loads per year of compost for each animal kept; and do not send beyond Cape Horn for manure till you have done this; and perchance you may find that, by a like care for the home fertilizers in all departments, you may escape the necessity of sending so far at all.

Matters and Things in General.

Do not forget to have up and aerated an abundance of matter for composting next winter and spring, if you have it on your farm. An excellent writer in this number—one whose articles are always too short, but will not hereafter be so far between—proves that the muck beds in our country are of greater value than all the banks. See our August No. for the best modes of treating it.

Again, before closing this article, we say, attend the fairs. Take along your boys. They will enjoy it after the summer's work; and that is something. They ought to have an exhilarating holiday. But they will learn something; and that is more. There will be the best cattle, Durhams, Herefords, Devons, Grades, natives, and all the rest. There will be the best horses, sheep, lambs, swine, fowls, etc. You and your boys may learn more in one day at the State or county fair, than in ten at home. It will be a change, breaking up the monotony of life, giving recreation, increasing physical strength, and giving tone and energy to the mind. Don't stay at home because the horse jockeys have attempted to monopolize the day for the special benefit of their own craft, but go in such numbers as to eclipse the rowdies.

We do not exactly advise the farmer's wives and daughters to attend the fair. It is a matter of taste; and we believe they are very capable of judging for themselves. But there ought to be nothing at these gatherings to prevent the attendance of ladies; and if they choose to grace and cheer the occasions with their presence, we pledge them our defence to the utmost of our ability. We'll talk for them, write for them, yes, and fight for them, if need be; and that whether they choose to appear on their pretty feet with their husbands, and brothers, and—(we dare not say it, lest we should seem to be growing too young,) or mounted in beautiful cavalcades among themselves. Our readers know our opinion, that every woman in this broad land ought to be an equestrian. A father in the country, (with us miserable cits it is different,) who has not taught his daughter of twelve or fourteen to ride like another Joan of Arc, slow, fast, up hill and down, through lanes, over fences, and across lots, on steady horses or wild, ought to be hung—not to the gallows, till dead, for we have no great partiality for that sort of hanging—but to a bench, till we should lecture him into a solid conviction that those who have daughters should bring them up so sound and healthy as to have more to enjoy than to suffer in after life.

The boys, who grow up on the farm, will be pretty sure of health at any rate. We engage that they will not trudge a mile on foot after the cows, if they can catch a horse. But it is better even for them if they can ride off a few miles on horseback, on some important business for their fathers, pretty often, after a day's work. Nothing will rest a tired boy so quick, not even the bed; and then it puts new life into one—inspires courage, hope, ambition—not a wicked ambition, that tramples on others, but a resoluteness to conquer difficulties, to rise in the world, to be

somebody, and to do something. The farmers' business is not alone to grow the colts, and calves, and pigs. It is their inevitable destiny to grow the men and women for a coming age, and the better they do it, the better it will be for the world.

If farming were not, as it is, the best employment for the present generation, we would be content with it, for the hold it has on all that is useful and promising for the future.

See that farmer's boy yonder. He is going for the doctor for a sick neighbor. How the old mare scampers with him; how nicely he balances himself; there is not a particle of danger that he will *tumble off*. He is not the boy to forget the importance of his errand. No matter that his hat is a little out of shape. All the neighbors know him, as they know he is a good fellow. That boy goes to school in winter, and works summers, and he is ten times more likely to be a full-grown man, with a body, *mind*, and *soul*, to be President of the United States even, than the prim, band-box-looking son of a Fifth Avenue millionaire; and if that boy don't marry the daughter of one of these millionaires by-and-bye, it will be only because he has the good sense to take a better girl nearer home.

BANKS OF DEPOSITES.

If a man should go into Wall street, and say the muck beds in the United States were worth more, in sound capital, than all the banks, he would probably see sneering on every side, and be called "greenie" at every corner. Such are the ways of the city—such are the ways of confined capital. What are all the banks in the universe worth until their capital is put in circulation at a paying value to both the borrower and lender? Dead property, coming into value only as the necessities of the public require. They who discount at the desk, do not produce anything. Food

and clothing, houses and lands, are no more comfortable, extensive or productive on their account, unless the advantages are bought at a dear rate, and too often the end is by-and-bye.

How is it with that mud-hole?—a slough in the swamp—so deep that if the rains come you can hardly step safely upon it. These contain a positive and fixed value. Accumulated as they are, for the most part from leaves fallen from the trees, or a spontaneous growth of vegetables, grown on the surface for no other purpose than decay, with sometimes a deposit of mouldering rocks borne by "still water" from the upland, it possesses just the element of vegetable life, though from exposure to cold water and slow composition, it may have imbibed foreign substances, which must be eradicated in order to bring it into speedy and prompt action.

Now if we should assert that one cord of this crude material, which a man may dig from the swamp hole in a few minutes, and which will not be missed when taken away, with a few cents' worth of lime or ashes added, and a few minutes employed in mixing them, is worth more than the same quantity of barn-yard manure, or than once and a half the bulk in horse manure, we should probably be called a fool outright. But never mind that; somebody says it that knows no better. If they will lay off the cap of wisdom, and put on the homely garb of industry, and go down to the swamp and get a load of this raw material, and give it a fair trial, their view of the matter will change directions, their vision will enlarge, and very probably they will see that we are right.

Composts of muck form the proper food of plants, and being slow of decay, they continue to furnish this food for long periods. Where horse manure is applied, its action is quick, powerful, and soon over. But little effect is seen from it after the first year—none after the second.

The effects of common yard manure are limited. If applied in large quantities, they may be seen for four or five years, though this is seldom the case. They are oftener over the third year.

Composts, with muck for the body, will continue, when the same number of loads are applied, double the time of either the preceding. Aside from this, it has other advantages in its cleanliness, being always free from the seeds of weeds. It is admirably adapted to gardens and field crops—especially for top-dressing.

For fruit trees there is nothing superior. It furnishes just the virgin soil they love to grow in.

And yet we have thousands of acres of this rich material in our country, lying undisturbed from year to year, scattering miasma instead of plenty over the land. In our own settlements there is scarcely a farmer without enough of it to restore that farm to its original fertility, and there is lime, and salt and ashes enough everywhere, and cheap enough, to reduce it to a healthful and productive condition. Here, then, are banks for everybody—always open—always ready to discount in the farmer's favor. When pay-day comes, they allow no long faces on account of protested paper, and make their annual dividends of from one hundred to two hundred per cent to their stockholders. Besides all this, they will cover the land with beauty, and fill it with plenty, give *bread and meat enough for all, and to spare*. Let the American people arise and draw liberally from their resources.

August 4, 1858.

W. B.

THE FAMOUS OAKS COW.

ED. FARMERS' MAGAZINE:—When I last wrote you, I remarked that I had nothing further to add about *native stock*. Since then I have met with an original letter that I received from the Hon. Josiah Quincy, of Boston, written in answer to inquiries that I made about

the Danvers or Oaks Cow. As this animal has become “a fixed fact” in the agricultural literature of our country, it may be interesting to you to know what a gentleman so eminent and so reliable as Mr. Quincy said of her, as he was her owner after she was exhibited at the State Fair in Brighton, in 1816, until she was sold to that distinguished breeder of fine stock, Col. Jaques, of Charleston.

My recollection is, that I was induced to write Mr. Q. an account of inquiries made of me by a gentleman of Albany, who thought from the likeness of this cow given in the 6th volume of the *Massachusetts Agricultural Repository*, and afterwards copied in the 4th volume of the *Massachusetts Agriculturist*, that she was directly connected with one of the present classes of European animals. That her progenitors, at some period, came from Europe, I will not presume to deny, but that she is as well entitled to the appellation *native* as any other animal ever reared in New-England, I think it clear beyond all doubt. And that she was, take her all and all, as extraordinary for her *butter products*, I think is equally clear. In one year she yielded 484½ lbs. of butter, together with a supply of milk for her owner's family, which could not have been less than 2 lbs. a week more.

Very truly yours,

J. W. PROCTOR.

The following is a copy of Mr. Quincy's letter, received May 22, 1854:

SIR:—The subject of the *Oaks Cow* has been out of my mind for at least *thirty-five years*.

I bought her for my farm use; her milk produce was satisfactory to my farmer, but neither her milk or butter were kept distinct from what my other cows produced. I raised no calves from her. I regarded her as a very good cow, which, by high feeding, good care, and special attention, might be made to

produce an extraordinary quantity of milk. But my relations with my farm did not permit me to keep individual accounts with any cow. When I sold her, and to whom, I have no recollection.

Yours respectfully,

JOSIAH QUINCY.

Mr. Quincy is the owner of a large farm, about nine miles from Boston, where many cows are kept. His own residence has usually been in the city. The letter is characteristic of that directness of speech which ever marked the man.

J. W. P.

REMARKS.—We suppose that the committee of the Mass. Ag. Soc., in 1816, were satisfied that this cow yielded 484½ lbs. of butter, besides supplying some milk and some butter for home use. Committees have sometimes been imposed upon, and made to believe what was not true. We do not presume it was so in this case. The Oaks Cow was undoubtedly a great milker, and by high keeping, probably produced similarly to the above statement for one season. Our native stock is undoubtedly as good for milking purposes as the world affords. For work, nothing can outdo our old red cattle. As a foundation from which to breed, for all purposes, it is doubtful whether there is a better stock. But our breeding has been bad. Much time would be required to overcome the bad effects of butchering the best calves and rearing the worst, of feeding on skim milk, without the oil cake, Indian meal, or oat meal, requisite to secure thrift, and of other bad practices. In this state of things, do we gain or not by importing foreign blood? In our opinion, we gain time by entering into the more advanced labors of the old English breeders. Give us a fair field. We go for free trade in cattle. Let who will import, and who will buy of the importer. But we should use common sense in improving upon the common, well-acclimated cat-

tle of the country. It would not be at all surprising if well-directed, persevering efforts in this line should be attended with results surpassing any yet attained in England, and if the importations from that country should lead us hereafter, as they have heretofore, to neglect proper efforts to improve our own stock, it may turn out that it would have been better for us if a wall, impassable to all cattle, had existed between this country and that.—*Ed.*

SORGHUM, ETC.

MR. EDITOR:—Your Magazine for August, with its variety of contents, is at hand. It strikes me as eminently calculated to instruct the practical cultivator. Its paragraphs are brief and to the point—just what the farmer needs, if the views expressed are just conclusions from actual observation.

In regard to the culture of the *sorgho*, there is no occasion for us to jostle with each other; in our wide extended climate there is room enough for us both. I readily assent to your position, that whatever benefits a part, in some measure benefits the whole. I have spoken only of the North—this side of the Hudson. That the *sorgho* will grow luxuriantly, and yield sugar abundantly, under the genial influences of the South, I have no doubt. That it is worthy of further experiments here, I readily admit. But I fear the reaction from the almost universal disappointment of the last season, is as great as the enthusiasm with which it was taken up at first. I have not been able to find a single square rod of it; nor have I met with any one who has confidence in its value for *New-England* culture. As a feed for stock, opinions vary, but generally no great partiality for it. It will not compare with other plants that have been long acclimated.

You kindly noticed my brief note of July 10th, (page 475,) in relation to rearing stock for dairy purposes. Any

opinion expressed must necessarily be conjectural. Since I wrote, I have met several authorities of high repute, confirming the views that I intimated. Until better instructed, I shall remain of the opinion that it is as important that the *male* should have descended from a good milking family, as that the *female* should be a good milker, and that the characteristics of the young are as distinctly marked by the male as by the female.

I have given attention the present season to several of the implements used for the cutting of grass. If I am able to satisfy myself as to which is entitled to preference, I will endeavor to advise you thereof. Of one thing I am certain, much remains to be learned as to their construction, and more honesty needs to be used in putting of them together.

Respectfully and truly yours,
J. W. PROCTOR.
So. DANVERS, Aug. 9, 1858.

THE WEATHER AND CROPS IN WESTERN PENNSYLVANIA.

ED. FARM. MAG.:—We have had a rather remarkable spring and summer so far. The last real wintry day of the season occurred on the 9th of March. It then became warm, and the snow melted away rapidly. About the 14th, it was mostly gone, and spring seemed to be fairly set in. The weather continued warm and pleasant till April 4th, when it took a change.

Frogs were out on the 27th of March, and butterflies on the 30th. We had our first thunder storm on the 4th of April. The ground was then in excellent condition for plowing; the roads were in a better state than they had been for a whole year previous, and spring seemed to have come in earnest. But alas! it is a straight road that has no turns or crooks in it. From and after the 4th of April till about the 17th of June, it was rainy and cool, and the wind was much of the time in the east. There was flood after flood in the river.

Rain, RAIN, RAIN!!! From that date on to the present time, we have had fine hay and harvest weather, with only now and then a shower. The 23d of June we had a heavy rain from the south-east, from 1 till about 2 P.M., when the clouds passed away, and the sun shone out blistering hot. That was rain and sun, I think, which did the mischief with the wheat here, or caused it to be seriously struck with *rust*.

For some time, up to Friday, July 30th, it had been so hot and rainless that the corn leaves and squash leaves rolled themselves up in prayer for a refreshing from the clouds of the lower skies. On Friday, from 9 to 10 A.M., their prayer was answered by a copious and refreshing shower, which seemed to make the vegetable world not only smile, but laugh and rejoice with true vegetable joy. Saturday, July 31, was showery during the forenoon, and Sabbath, August 1, was mostly a rainy day. There were daily or nightly showers till Aug. 4th, by which time the ground was thoroughly wet, and vegetation seemed satisfied, and the weather again became settled and fair for harvest. On July 2d, the mercury was 94° at 12 M., in the shade, and as high as 91° or 92° on some other days. It has ranged much of the time at noon from 80° to 90°. So much for the weather.

Now for the crops;—*Wheat* is but a slim crop here. But little was sown, owing to last season being so wet that new land could not be cleared, and but little old ground was sown; and the *rust* and *midge* so nearly ruined much of it, especially the late sown, that it was hardly worth harvesting.

Corn is another slim crop. May was so very wet and cold that scarcely any corn was planted till about the 1st of June; and then, owing to bad seed, much of it came up missing, and what was not missing, looked as though it had, at least, half a mind to take the back track.

Oats are rather a light crop. The forepart of the season was so wet and cold that they did not come forward rightly, and the latter part has been so dry and hot, that they were struck with rust worse than I have any recollection of seeing before. The straw is slender and soft, the heads light, and so badly crinkled and broken-down that it is impossible to cut them otherwise than to mow them as grass.

The hay crop is pretty good, and mostly got in, in fine condition. Hay and harvest weather this year has been very different from what it was last year.

Buckwheat and potatoes are coming on very finely since the last rains. There was not, so far as I know, about here, a very large breadth of the one sowed or the other planted; for, between rotting and freezing, there were but few potatoes to be had for planting.

If the fall continues as favorable as at present, I think there will be a large amount of new ground sowed to wheat this fall, if seed can be obtained.

D. MILLS.

NEWMAN'S MILLS, Pa., Aug. 12, 1858.

CURING AND USE OF MUCK.

ED. FARMERS' MAG.:—I intended to give you some ideas in relation to fencing farms, but my health has been such that I have been unable to take the time from my necessary rest. In looking over your Magazine I see numerous ideas in relation to the use of muck as a manure. I will give mine in relation to the cheapest and best way of preparing it.

It seems to me the point to be attained is to reduce it to as fine particles as possible, and then to remove its acidity—the best and cheapest way of affecting which is I believe as follows—at such time as is convenient take the muck from the bed and remove to such spot as may be most convenient, placing it in heaps of the form of the roof of a house, making the heaps not more than eight feet wide

but as long as may be desired, and running east and west. In the winter the freezing and thawing on the south side will, I believe, produce just the effects desired, and during warm days a powdered and cleansed muck can be removed to mix with fermenting manures either in the yard or stables, thus giving life to the muck and retaining the volatile portions of the other manures.

Yours, J. A. M.

Williamsport, (Pa.) Aug. 12, 1858.

Will J. A. M., give us his views of fencing for a future number? The subject is important. His ideas of a powdered and cleansed muck to be mixed with the manures in the yard and stables we like. As to the mode of preparing it, we should prefer to have so much of it, at least, as was designed for the stables, under cover very near the stables, and in such a powdered state by previous management (see our Aug. No.) that it could be always at hand and easily applied, when wanted, as otherwise, especially in cold or in stormy weather, it would be likely to be neglected. Its daily use as an absorbent, independently of the weather, is what we think should be commended. Nevertheless, it might not in all cases be possible to find room for it, in or near the stall; and the mode commended by our correspondent, has many considerations in its favor. If adopted we would advise an admixture with the roof-shaped pile of shell lime, a bushel or so to a load, as this would not only hasten the decomposition of the muck, but would create a sufficient heat to prevent its freezing so hard as to be inaccessible, in any but the coldest weather.

AGRICULTURAL COLLEGES.

MICHIGAN seems to be taking the lead in these institutions. A great experiment is that, which proposes, without taking the benefits of high and thorough education from the few, to give them to

the many—to make broad as well as deep the pellucid streams. The following, which we cut from the *Detroit Daily Advertiser*, will be read with interest by all who have not inherited the *notion* that knowledge spoils men, except for certain favored positions in life.

Our Agricultural College.

In every age and under every form of government, the undistinguished many have been subject to the oppression of the aristocratic few, to whose interests they have been made to minister, rather than to their own. The progress of ideas, has in this country dispelled the charm of hereditary rank and power, and paved the way for the more easy elevation of talent, enterprise and industry, yet the distinctions of class still remain, and though the people are no longer under the dominion of irresponsible power, they are because of the unnatural divorce between labor and intelligence, rendered subservient to an aristocracy of wealth, learning and astute management.

It is much to be deplored, that the distinguishing advantages of civilization are reserved for the few, and that there exists such an inequality of intellectual development, culture and refinement of taste and manners as harmonizes ill with the divine government and the pressing needs of humanity. One of the great problems of the age is: Does mental culture consist with the prosecution of those pursuits, in which success depends upon the vigorous use of man's physical energies? In other words: Can labor be united to literature, science and refinement? The question can not be solved by any form of government, but is a social one, underlying the very idea of democracy; for unless the people be elevated—unless knowledge can be generally diffused, the majority must remain under domination of some sort, and be swayed by those who have attained to a higher degree of intelligence.

The infancy and childhood of man, have much to do in the formation of his sentiments and habits, but the seal is set, the die is cast, when the youth emerges from the common school, and either enters a higher institution of learning, or apprentices himself to a life of arduous and unremitting toil. As our colleges are now constituted, whatever may be the purposes of a young man on his entrance; whatever his estimate of the

value of labor to a complete and manly development of his whole nature—however strong may be his democratic tendencies; his intellect being there cultivated to the entire disregard of all muscular training, habits of physical incapacity are formed, which generally settles the question, and thereafter he is *not one of the people*.

These institutions by the nature of their arrangements, do wholly ignore all sympathy and association with labor. Modelled after those of Europe, their tendency is to conserve their advantages for a class who, bidding farewell to all agricultural and mechanical pursuits, henceforward direct their whole energies to the acquirement of a standing among a literary and professional aristocracy. Allied by interest to a class which despises labor they cease to sympathize with the people from whom they have emerged, and despising the utilitarian mass, treat every effort to realize the harmonious development of mankind, as a utopian dream, and class the endeavors of patriot and philanthropist with the schemes of the visionary and the *isms* of the fanatic.

Private munificence and general and state governments, have liberally endowed these aristocratic institutions all over the face of our country. So liberal have been these endowments in our State, that the cost of a University course scarcely equals that of the common school for the same period; but such is the ascendancy of the interested class, and so great the apathy and indifference of the industrial interest, that the smallest appropriations by the legislatures for the endowments of agricultural colleges have been persistently opposed, and private munificence has scarce been reached. Thus, while the "learned professions" have been fostered and every facility for culture, afforded those desiring to enter them, the productive interest, taunted with ignorance has been denied the means to test the practicability of emancipation from the vassalage which a dwarfed and crippled manhood has entailed upon it.

Protracted and arduous has been the struggle of the friends of this cause, to engage public attention, and gain a lodgment for their idea of a democratic system of education suited to the genius of this new world, but the serried front of old conservatism has at length been broken, and we see the dawn of a bright-

er day. Armed with a constitutional provision, the friends of agriculture in Michigan have successfully urged its claims, and the Legislature have responded by endowing the State Agricultural College at Lansing.

The land belonging to it, 600 acres in extent, is eligibly situated on the Cedar River, three miles from the Capital. The soil is diversified and of excellent quality, and the river running thro' the grounds affords an excellent opportunity for the display of taste in laying out and adorning the domain; springs abound and furnish a never-failing supply of excellent water. A commodious college building, a boarding house, accommodating a hundred students, and dwelling houses for the Professors have been erected, and are situated about midway between the river and the Detroit road.

The farm being entirely new, many difficulties had to be overcome in applying the labor of the students to the nature of the work—in clearing the tangled marsh in front of the buildings, in stumping, ditching, fencing and making roads, so that the convenience of cultivation might be obtained, and an opportunity afforded for engaging in experiments at as early a period as possible.

Many obstacles inherent to the nature of the enterprise are still encountered, where every advance is an experiment, and no well ascertained landmarks define the path which leads to ultimate success, and the President, with all the energy and firmness for which he is distinguished, needs the active co-operation and cordial sympathy of the friends of the cause throughout the State, in rendering the farm a model in the departments of agriculture and horticulture—and in carrying out the great design and primary intent of this institution—that of uniting labor with Science and Literature, and harmonizing their claims hitherto considered incompatible.

The Literary and Scientific course is thorough and practical, and conducted by men of ability and experience. The faculty with one accord express their conviction that the students accomplish more in their intellectual pursuits than if they had no labor to perform—this from men hitherto connected with purely literary institutions, is highly valuable, as it unites the testimony of experience with the clearest deductions of reason.

The Department of Labor very pro-

perly engages the special regard of the President, who is assisted by a practical farmer, and unremitting attention is given to all its operations. The students are called out in three divisions, each division working three hours, and thus completing nine hours labor in the day, for which they are compensated according to their ability, and all the operations in every department of agriculture and horticulture are cheerfully performed. They fell the forest, log and burn, stump, grub and grade—they make the roads, build the bridges, lay the fences, and cut the drains—they survey the land, break the soil, manure, sow, plant, and cultivate—they cradle, thrash, and secure the crops—they attend the stock, prepare fuel, and, in short, do everything necessary to successfully conduct the business of the farm. Already nearly 200 acres of the primal forest is in process of cultivation, and nearly 100 have been sowed and planted this year. Had the season been favorable, the products of their labor, altogether independent of the enhancement of the value of the real estate, would have gone far towards sustaining the boarding establishment, and so soon as the farm is improved, and the horticultural department brought into successful operation, experience thus far warrants the confident expectation that the labor of the students will supply the wants of the table, and provide the means necessary to the progressive cultivation of the farm.

The students are a fine set of young men, and their general deportment highly creditable—they have two literary societies which are sustained with spirit. The apparatus in the philosophical department is excellent, and the course in chemistry very thorough. The Library, though presenting a fair show of agricultural books, very much needs liberal donations of works of history, science and general literature, and it is to be hoped the generosity of individuals will be directed to this object.

On Sunday, religious exercises are conducted by Professors Tracy, Fish and Abbott, in succession.

The boarding establishment is better than those generally connected with institutions of learning, and everything is served up with neatness and taste.

Thus far the Agricultural College is a decided success, and determines the mooted question of the compatibility of

labor and learning. Nothing is wanting but a continuance of the kindly and fostering influence of the people and Government, to render it a blessing not only to our own State, but to the entire Union, and to humanity everywhere. Michigan has placed herself in the front rank, as the Pioneer of this radical movement, and should she falter, the foes of genuine democracy would say, "Ah, ha! so we prophesied!" Dismay would be carried to the hearts of those now rallying at the call of Patriot and Philanthropist throughout the States, and lead to *conservative compromises with false systems*, which would prove fatal to the cause, and terminate in failure and disappointment. Only a bold and determined stand can insure the success of the grand idea, that *self-sustaining labor can go hand in hand with mental culture and refinement of taste*. Let this principle be once established, and a new era will have dawned upon the world, more potent and benign than all the revolutions which have hallowed the names of heroes.

Let then the "Amæna Peninsula" go forward to perfect the work so nobly begun, and let no son of hers be found to stay with impious hand the progress of the ark bearing the insignias of LABOR AND LEARNING. Let the stout hearts and strong arms which have lifted it bear it aloft till it is safely moored in the hearts of the people. Our country is a generous mother, and combines with the grandeur of her mountain ranges, the scope and breadth of her plains and ocean lakes, an unexampled fertility of soil and variety of productions, and it only remains for her children to emulate this munificence in the development and culture of all manly and womanly excellencies, to render this nation the crowning glory of the age in a far higher sense than any mere form of government can do. To this aim, let heart and hand be given till a universal culture shall annihilate caste,

"And man to man the world o'er
Shall brothers be, and a' that."

WEARING OUT LAND.

"Our land does not produce two-thirds as much now as it did fifteen years ago."

So writes a farmer from a region which cannot have been settled more than from twenty to thirty years.

Our reflection is, that the farmers there cannot be worth more than two-thirds as much as they would have been if they had so managed their land as to increase instead of diminishing its productiveness.

There may be exceptions—some men may be keen enough to make money and wear out their land by the same operation. But the general rule is the reverse of this—that the most profitable husbandry improves the land, and that the husbandry which deteriorates the land is not profitable. We hold that a farmer of only ordinary means cannot afford to make his own land poorer; and that even if he were cultivating another man's land for a succession of years, he could not possibly afford to leave it much worse than he found it.—ED.

LESS LAND OR MORE LABOR— WHICH?

We are not one of those who indiscriminately recommend small farms. We fear there is a tendency in small farms to make small men; and we deprecate the idea that the farmer is to be a man to be looked down upon by men in other callings. There has been enough of that in the history of this world, and we want to see the tables turned. Nevertheless it would be better to get a good living from ten acres than to fail of a living from a hundred.

In another place we have intimated that it is cheaper to make land more productive than to wear it out, as the phrase is; that if we enrich the land, it enriches us; and that if we impoverish it, it impoverishes us. Something like a demonstration of this would gratify some of our readers. This we will attempt; and what we have to say shall be in close connection with our motto, *Less land or more labor.*

That it is cheaper to raise a farm to a higher than to sink it to a lower productiveness is our proposition; and what we mean by it is, not that it costs more

labor to diminish than to increase the productive power of soil, but that it does require more *unpaid* labor to wear out a soil by a ten years' cultivation than to enhance its productiveness in the same time.

To simplify as much as may be, we will suppose here are three acres, arable land, now in turf, and of a fair quality, to be cultivated respectively by A, B, and C for the next ten years. A is a calculating, thinking farmer, in no way extravagant, but willing to expend money and labor where he sees a reasonable prospect of a return with profit. B is a careful soul, willing to labor, but as shy of all other expense for crops as of the itch. C takes it easy, and will reap what his land will give, without giving it back much of either labor or manure.

Indian corn, we will suppose, to be the crop the first year. A turns over the turf in November to a good depth; harrows in fifty loads of compost in the spring, made, it may be, of twenty loads of barn manure and thirty loads of something which his industry and ingenuity have gathered up at a cheap rate for the purpose; plants the best variety of corn that he can get any certain knowledge of about the middle of May; tends the crop well, and gets eighty bushels to the acre.

B wants all his manure for other crops, and thinks this turf-land will do pretty well without manure. He plows in May, five or six inches deep, but very nicely. His team is not strong enough to plow much deeper; and as for paying for extra team work and manure to warm the deep soil that would be plowed up, he cannot think of it. Farming, in his opinion, is not a business to spend money in, but to get money by. But he plants in good season, tends the corn well all summer, and gets thirty bushels.

C takes it easy; plows when it is most convenient; plants and hoes when nothing hinders; does the work shabbily,

according to his wont; and more by providential favor, than by his skill or industry, gets sixteen bushels of decent corn and plenty of *pig ears*.

Now B has done more work than C; A has expended more labor than either, besides a costly manuring; and if the race ended here they might not come out so very unequally.

But suppose all three to follow the corn crop with rye, and seed with clover, herdsgrass, and redtop in April. It is not unreasonable to suppose that A will get twenty-five bushels. B will have nothing to complain of if he gets fifteen bushels. If C gets more than ten he ought to be thankful. But these crops cost one no more than the other. And now A is fairly ahead—has been better paid for his outlay. But this is only the beginning.

The third year A gets two and a half tons of hay; B one and three-fourths, and C not more than one and a half at best; besides that, A's acre will pasture a cow well from the middle of July to winter, whereas the feed on B's and C's is of but little worth. Next year the disparity will be still greater, if all three acres are kept to graze without further manure. A's acre will produce more value, though perhaps less quantity, both of hay and fall feed, than the previous year. B's grass will have nearly, and C's quite run out. Neither will be much more than worth cutting; and as for fall feed, cows that are condemned to it will give little milk, and make less butter; and, if they have much pluck, will be apt to break fence and seek better fare, especially those on C's premises, where fences cannot be expected to be over and above good. We suppose our readers have noticed that poor fences generally keep company with shallow culture and poor feed, on the old principle that "Birds of a feather flock together."

By this time the expenses of B's and C's cultivation will have been more than half as much as that of A, but A's re-

turn will have more than doubled theirs. Nor is this all. A's land has now a deeper, richer turf than theirs—is in far better condition for another round of crops.

We intended to have gone through with the remaining six years. But it is unnecessary. Our readers will understand that if calculating A, and careful B, and careless C were to go on in their respective ways to the end of ten years, there would be a wide difference in the value of their acres for after cultivation. C's land would be pretty thoroughly worn out; B's would be ditto; and A's would be a great deal better than when he began. Is it not so? Has not A been better paid for what he has done and expended than the others?—and does it not follow that it is cheaper to enhance the productiveness of land than to diminish it?

Some will say this is all talk; there is nothing practical in it; let him try it, and he will find farming one thing and writing about it another. But our reply is, that we know the truthfulness of all this by actual trial, and we know it by the widest observation. If you cheat the land it will cheat you. "As a man soweth, so shall he also reap." In a higher sense we have indubitable authority for this. In our application of it to soil culture, we appeal to the very best and most successful farmers, if it is not so. It follows that the farmer wants less land or more labor. The latter is our remedy. The farmer, it seems to us, shou'd not ask how little help he can skim along with, but how much he can employ profitably.

And remember, farmers, that the more help you can employ, and yet secure a fair return to yourself, the better for the country; for you thereby afford encouragement to men to escape from the filth and wretchedness of our cities, and to seek an employment more favorable to whatever is virtuous, elevating, and patriotic.

It would be too much to ask the farmer to employ men to keep them out of idleness and vice, without a reasonable prospect of remuneration. But when such a prospect is presented, the farmer who rejects the opportunity sins against his own interest, and fails of being a benefactor where he might be one.

THE WEEVIL, WHEAT MIDGE, &c.

ED. FARMERS' MAGAZINE.—Sir: I send you some extracts from the *Evening Post*, concerning the extermination of the weevil, midge, fly, and rust of wheat. Please insert them in your valuable journal. I will give you also a word of my own experience. The most effectual process to prevent smut in wheat, the fly, weevil and midge, is first to wash the wheat clean, by stirring and skimming it in several waters, only pouring water from the well or a spring, and stirring the wheat until the water runs off clean. Then take, 2 quarts of *caustic lime* to a bushel of wheat, and stir it into the wet wheat in a tub until it is thoroughly mixed. The wheat should be just covered by the water and remain in this condition 12 hours. It now becoming thoroughly saturated with the caustic lye, all eggs are killed—be they weevil, midge or fly.

At the end of the twelve hours, common house ashes mixed with 1 lb. of sulphur should be then stirred into the wet wheat, until it has become dry enough to sow, when the wheat should be immediately sown broadcast and harrowed in.

The lime and sulphur and ashes will effectually kill the eggs of all vermin, and protect the young sprouts of the wheat and its roots from the attacks of the earth worms and animals which prey on the fresh sprouts and roots of the plants. I have seen all this done, and helped to do it, and I have seen the wheat grown which had been treated in this manner, and produce one of the largest crops of wheat ever known. This too

was on the granite soil of New-England, and where the land had been cultivated 100 years.

The New-England people can raise the best wheat, and great quantities of it, if they will follow these plain and simple directions in the preparation of their wheat before sowing.

A SON OF A PILGRIM.

The following are extracts alluded to.

HOW TO EXTERMINATE THE WEEVIL—INTERESTING DISCOVERY.

J. L. Booth, now of this city, who has made some valuable improvements in grain cleaning machinery for flour mills, sends us the result of some experiments with his machine for scouring grain. He obtained from a farmer thirty bushels of wheat from a bin of two hundred bushels, and after passing it through the machine, placed in glass jars samples of the cleaned and uncleansed grain. Upon examination some time after, he found the latter alive with weevil and badly eaten, while that which had been scoured was perfectly free from any appearance of the insect. This led to a microscopic examination of the berry of the wheat, which resulted in convincing him that any grain infested with weevil can be entirely cured and preserved by the simple process of cleaning. In proof of which he states that a large portion of the grain seemed to have a single blister or slight prominence upon the germinating end of the berry, which was readily removed by the point of a knife, and the egg of the weevil discovered. Mr. Booth is satisfied that this thorough scouring and agitation of the grain removes the glutinous covering of the cell containing the egg, and that its exposure to the air destroys its generating properties. And if the wheat is taken in any condition, after this insect has passed into the larvae or perfect state, and treated as above mentioned with any effective smutter, this pest will be completely eradicated. There are other species of the same destroyer—one in which the egg is deposited in the berry while in a soft state before harvest, and the depository being capped over to exclude the air, the egg remains thus protected until the grain is again sown, and does not change until decomposition commences from the action of the earth

and process of germination. It will be seen, by the extracts which follow, that many ineffectual attempts to find a remedy have been made. As Mr. Booth's process is within reach of all, it is worth the while of those whose grain is infested by weevil to try it.

The following extracts from the fifth volume of the Natural History of New-York, written by Professor Emmons, give some interesting information respecting the several species of weevil, and the means hitherto taken to destroy them:

CALANDRA GRANARIA.—This insect is an European species, but has been introduced here in samples of wheat received from France. Many bottles of sample wheat were entirely destroyed, although perfectly closed, so that nothing could get in from without. It is called the *Corn Weevil*.

I suppose this introduction of the insect, which was accompanied with another, the *Sylvanus Surinamensis*, is only a single instance of its occurrence in this way. When it was observed that the specimen grain was destroyed by these imported insects, Mr. J. E. Gavit volunteered to describe and illustrate the insects for publication in the Transactions of the Agricultural Society of this State. I am permitted to republish this valuable account, furnished by the gentleman referred to, as too much publicity can not be given to a matter so interesting to the wheat-growers of this country.

Mr. Gavit, in his communication to the Secretary of the Society, states that in the specimens of wheat furnished me I find two beetles—one the true weevil of Europe, *Calandra granaria* (Clairville;) the other, *Sylvanus Surinamensis*, the weevil most commonly found infesting the granaries of this State.

No insect is more formidable to man than this little pest, since it attacks the principal basis of his food; and they are sometimes so numerous in a heap of grain that they destroy it altogether, leaving nothing but the chaff. After the sexes have paired, the female makes a hole in a grain of wheat with her rostrum and deposits an egg. These holes are not perpendicular to the surface of the grains, but oblique, or even parallel, and are stopped with a species of gluten of the same color as the corn. Oliver says there is but one to each grain. I, however, have repeatedly found two, one

in each lobe, and these larvæ as plump and well-conditioned as those who had the good fortune of a kernel to themselves. From the egg is hatched, in due time, a small footless grub, which, during its growth, eats out the entire contents of the grain, and when lodged in the grain is perfectly sheltered from all injuries from the air, because its excrements serve to close the aperture; so there is no use in stirring the grain, as nothing can incommod it. It is very white, has the form of an elongated soft worm, and the body is composed of nine prominent rounded rings; it is nearly a line in length, with a yellow rounded head provided with organs proper for gnawing the grain.

When the larvæ has eaten all the flour, and is arrived at its full growth, it remains in the envelope of the grain, where it is metamorphosed into a nymph, of a clear white, and transparent; the proboscis and antennæ can readily be distinguished, but it gives no sign of life except when disturbed, and then but a slight movement of the abdomen. Eight or ten days after, the perfect insect eats its way out. In general, that which serves as nutriment to insects in their larvæ state is unsuited to the perfect form. To this the calandra is an exception; for scarcely has it issued from its nymph state than it proceeds to pierce the envelope of the grain to establish itself anew therein. I have frequently watched the perfect insect feeding upon the farina of the grain, having pierced the skin and buried the proboscis to the base. It is often found, however, lodged in the interior of the grain, and its black color does not announce its recent issuing from its state of nymph, since it is of a straw color at the time when it has just left its sheath; nevertheless, we must doubtless believe that it occasions much less injury in this state than in that of the larvæ. . . .

Mr. Gaylord, however, in his prize essay published in the Society's transactions for the year 1843, says of some specimens of wheat that he had received from the Patent Office, in which he found weevils, that "selecting some pure flint wheat kernels, all perfectly sound, we enclosed a dozen of these weevils with the wheat in a large phial to prevent their escape. The phial was wrapped in paper and placed where it would not be disturbed, except for examination. Opening it occasionally for

more than a year and a half, I found my weevils, with the exception of one or two, all living, and appearing to enjoy themselves much on the wheat, a large portion of the kernels of which they had hollowed out." This would imply that they survive two seasons at least, and that I have in my possession proofs to sustain this assumption. Many and various modes of exterminating this foe to man have been tried. We first hear of fumigations with herbs of strong and disagreeable odor; but this seems useless, as it does not incommod the insect, while the grain receives a foetid and disgusting scent. The fumes of sulphur are pronounced equally inefficient. All these fumigations are still less adapted to the destruction of the larvæ, as the smoke can not penetrate among the grain, and their perfectly closed envelopes secure them from all such annoyances.

Oliver recommends the following as one of the most effectual and least expensive modes of destroying them: "At the return of spring, when the calandra are observed to spread in the heaps of winter-stored grain, it will be necessary to form small heaps of five and six measures, and place them at a suitable distance from the large heap; this stir with a shovel. The insects, who are singularly fond of tranquility, seek to escape, and, seeing another heap of grain alongside, they take refuge therein. When all are thus collected, boiling water is brought and poured over them, stirring it from time to time with the shovel to secure its penetration through the grain while hot. All these insects then die, being burned or suffocated at the moment. The grain is then spread for the purpose of drying, and afterwards sifted to separate the dead insects.

"It is necessary to perform this operation early in the spring, before the deposition of eggs, the generation existing being only dangerous in giving birth to its successors. This method may be performed on a large scale as well as a small one, without occasioning any considerable expense.

"Other experiments have proved that a sudden heat of 75 degrees Fahr. is sufficient to destroy these insects, without burning them; and a simple efficacious method is mentioned in the *Tennessee Agriculturist*, quoted by Mr. Gaylord in his essay: 'If a hogshead, with one head removed, be inverted over a fire

until thoroughly heated, and then immediately filled with wheat and re-headed, all weevils in the grain will be killed, and the grain may be kept in safety till wanted for use.'

"A gentleman in Madera has established a heated room, with hot-water pipes, in which he receives as many as eight hundred bags of grain at a time; these become heated through at about 135 degrees Fahr.; and the wheat, when resifted, is perfectly cleaned, making quite as good bread as before, the seed also losing nothing of its vitality by this process."

"The French 'lay upon the grain fleeces of wool which have not been scoured; the oily matter attracts the insects among the wool, when they soon die, from what cause is not exactly known.'"

CECIDOMYIA CULMICOLA.—The *C. Culmicola* is a provisional species, whose habits have been investigated by Miss Margaretta H. Morris, by whom also it was discovered. Its habits are quite different from those of either of the foregoing species. The fly lays its eggs upon the grain, in or over the germ, where they remain unhatched until the grain germinates; but when the plant is three or four inches high, the worm may be seen, by the aid of a glass, feeding above the top of the joint in the center of the culm, until it is ready to become a perfect insect. It is said that the pupa resembles that of the *C. Destructor*.

As the fly deposits its eggs early in June, it is difficult to understand why they should remain unhatched so long, or until the future germination of the same ripened grain after it is sown, and then to feed upon the culm; for it is the usual habit of flies to deposit their eggs near or upon the magazine of food on which the larvæ are to subsist.

A PLEA FOR MOLES.

Hogg, the Ettrick Shepherd, observed that on lands tenanted by the mole, the foot rot in sheep was much less prevalent than where they had been extirpated. An intelligent farmer in the south of England, writes: "From long and attentive observation I feel satisfied that no animal is more beneficial in its calling than the mole. The farmer, I think, ignorantly and wantonly destroys them. Were he to reflect a little, and make a

84

few observations, he would, in most cases protect and not destroy them, as they are very interesting assistants to his labors. They destroy the wire-worm and all kinds of grubs, and so beneficial is this, that I have seen many fields of corn greatly injured, if not destroyed, by the moles not being permitted to work in them. I never allow them to be trapped. Year before last I had a field of wheat in which the moles were busily at work, I was anxious to preserve them, but in my absence, a neighboring mole-catcher entrapped them. Exactly at the place from which they were removed, and for about an acre further into the field, the wire-worm entirely destroyed my wheat. I made it my business to examine many places in the neighborhood where traps were set. In one field I saw eight traps in an area of about an acre of wheat. I examined the place and found the worm at the root of almost all the plants. Several other fields were examined where traps were set in the same manner, with results always the same."

Some time ago I was passing with a friend over a field, and he observed that it would grow nothing on account of the wire-worm. I told him to get moles. "Why," said he, "we cannot keep them out of it; we destroy quantities of them every year!" I said, "don't destroy them." He took my advice, let the moles mind their own business, and since that time the field has borne excellent crops.—*Correspondence of the American Agriculturist.*

COST OF UNDERDRAINING.

We see it stated in an exchange that "On the Premium farm of the Empire-State," there are sixty-one miles of underdrains, all laid by the present proprietor, R. J. Swan, of Rose Hill, near Geneva. The cost has been much less than usual, as drains from two and a half to three feet deep, have been laid complete at an expense of 28½ cents per rod. Digging, 12½ cents; laying the tiles and filling the drains with plows, 3 cents; average cost of tiles and cartage, 18 cents.

A PREDICTION.—The time is not distant, when it will be conceded that underdraining costs absolutely 0. We do-

not mean that you can dig a hundred rods of ditch and lay down 1600 joints of tile three feet deep on an acre, and not have it cost something, say all the way from 8 to 18 dollars, according as you do it advantageously or otherwise; but that the saving of labor in the subsequent cultivation, will be enough and more than enough to balance the cost of underdraining; so that, in the long run, you may underdrain and cultivate an acre at a less cost, than you could cultivate it without underdraining. It would be good economy to underdrain water-soaked lands even if they would not produce an extra bushel for it. But when we consider that they will produce double, the case is very clear. If you have such land, send off for the tile at once and have them down, or you will be sorry enough, before two years more have gone over us.

THE MIDGE, FLY, WEEVIL AND RYE.

CONTINUED wheat cropping until the silex is exhausted will produce soft, spongy stalks, that will partly invite the attack of fly and rust. It is far more liable to rust, and smut, and fly, in some soils than in others. As the alkalies and other fertilizing elements become exhausted, its crops of wheat not only become smaller, but the plants fail in constitutional vigor, and are more liable to diseases, and to the attacks of parasitic plants and destructive insects. Defects in soil, and improper nutrition, add to these disastrous results. Soils may have all the material necessary to produce a large crop of wheat, but for want of soluble silica to give it a hard, glossy stem, it will be unable to withstand wet, lodge down, rust, and give harbor to the midge; and in September and May to the fly. From one hundred to one hundred and fifty pounds of soluble silica are required to glaze the stalks and kernels of an acre of wheat, and three-fourths of it is required in the last sixty days of maturing. This is the time the stalk acquires its solidity and strength. But all the sand in the world will do no good, unless soluble or liquid, so that the plant can draw it up and use it. All alkaline minerals, as

potash, soda, lime, magnesia and ammonia, hasten the solution of the insoluble compounds of silica in the soil. Without some alkaline mineral a crop of wheat may be worthless for want of silica, although the crop grew in a heap of sand. Until it is dissolved and made liquid, it is as foolish to expect wheat to use it, as it is to offer a cake of ice to a horse and tell him to drink. In each case the appropriate substance is present, but not in a condition to be used.

The first great cause of midge, fly, weevil and rust, is a soil exhausted by wheat cropping, so that there is not silica sufficient to harden the stem and seed. The remedy, if there is sand or silica in the earth, is alkaline minerals, to render the sand soluble, so that the sand can be drawn up by the pores of the plant.

As the fly operates in September, one remedy is to sow so late that the fly will be gone before the wheat comes up. As this will prevent the fly from depositing its egg in the fall, the crop will be free from them in the spring. If wheat is sown from the 1st to the 10th of October, there is little danger from the fly; but it makes the growth so late that it is apt to winter-kill, and be subject to rust. All varieties of wheat, if sown early, are liable to injury from the fly; and if, to avoid this evil, sowing be delayed till late, the plants do not get sufficient root to stand the heaving of the frost, and winter-kill; and not being glazed early enough to avoid the rust season, in June, they are subject to that evil, as well as the midge. As, in sowing early to avoid the rust the wheat is liable to fly, and in sowing late to avoid the fly we subject it to the rust, the great object should be to adopt some measure whereby we may avoid both.

As unsound and unhealthy plants are more subject to fly and rust than are healthy ones, the first object should be to get healthy plants. To insure healthy plants we must have sound and healthy seed. Kernels broke in threshing, stung by the weevil, affected by the rust, or dwarfed, or shriveled by the injury of the fly to the stalk, should never be sown.

We should have good land, possessing naturally or supplied artificially with all the constituents of the wheat crop.

To insure such seed it should all be put in water before it is sown, and what floats on the top is imperfect, and should

be skinned off. If the kernel is stung, shriveled or defective, the water ordeal will show it. What sinks in the water is sound. It may, however, have the spores of smut or rust on it that will propagate and produce a crop of that curse. To prevent that, the seed that sinks to the bottom should be steeped in lime-water, or sulphate of soda, or brine, then rolled in plaster; or if soaked in sulphate of soda or brine, roll it in lime recently slackened, putting a peck of recently slackened lime to each bushel of wheat, and shovel it over till the seed is completely covered. It should be soaked from four to six hours. This will kill the spores of the rust or smut, and produce healthy seed—which, with good land and good cultivation, will insure healthy plants.

Another remedy is to get a variety of wheat that can be sown so late as to avoid the fly in September, and that would ripen so early as to avoid the rust in June.

The Mediterranean is some ten days earlier than any other variety, which usually saves it from the rust. It will also bear to be sown later than any other variety.—*Ohio Farmer.*

HARVESTING WHEAT.

THE following so completely corroborates the views recently expressed by us, that we copy it though out of season for this year:

The usual practice among farmers is to let wheat stand, before it is cut, until the straw has entirely changed color from green to yellow, and the grain has become hard and nearly or quite dry. Numerous experiments have been made in this country, but more particularly in England, to determine at what period of ripening it is best to cut wheat, having in view the greatest yield of grain, and that of the best quality. It is well known in those who have investigated the subject, that the ripening of seed consists entirely in certain chemical processes, which we can not here attempt to explain, that are of importance to be considered in order to make the most of the crop after grown. The immature grain of wheat, in its early stage is found to be filled with a milky fluid, which gradually changes in consistency, from this milky state, to one more firm and solid. These experiments have been in-

stituted to determine with accuracy at what period of this change the grain should be harvested to secure the greatest advantages. The unanimous opinion appears to be, that if grain is cut soon after the straw below the head has turned yellow, while the lower part of the stem is still green, and the seed yet remains in a soft and doughy state, the grain will weigh more to the bushel and yield a greater amount from a given space of ground, that more and better flour is made from it, and where the straw is to be fed to stock, it is relished better and is more nutritious than if the grain was allowed to stand until it became fully ripe.

These experiments have been so frequently made and with such uniform results that we feel unwilling to let the coming harvest pass without again reminding our readers of the fact. A very careful series of experiments were made of this character, some years since, in Yorkshire, England, by Mr. John Hanham, and he sums up the loss by shellings, and in the weight and quality of the grain, from letting it stand until fully ripe, equal to \$6 per acre, a sum, or even half of it, that should not be lost sight of by the farmers.

HOME SOURCES OF FERTILITY.

We copy the following from the *Homestead*, not so much for anything new contained in it, as for confirming, by the testimony of that excellent journal, the views we have always expressed, and keeping them constantly before our readers. The editor of that paper, after some sound, judicious, and much needed instructions about the concentrated manures, guarding the farmer against fraud on the one hand, without too much discouraging enterprise on the other, says;—

We have no doubt that these manures could be used to good advantage in many cases, but the greatest reliance of the farmer should be upon the resources of his own soil. "The farm its own fertilizer" is a sound maxim, so long as the great majority of our cultivators are neglecting full one-half of their opportunities to enlarge the compost heap. How much manure can be made from the farm, has not yet been determined.

It is safe to say that five and twenty loads can be made from each cow, or horse, and in like proportion from the smaller animals. With manure sheds and muck, a farmer can enlarge his manure heaps about as fast as is desirable. The fatal temptation with most of them is that they do not love the labor that is necessary to make the compost heap. It needs to be made the season before hand, and the gathering of muck is put off until the season forbids it. It seems a great deal easier to buy a few bags of guano next Spring, than to dig a few hundred loads of muck this Fall. They want the crops without the labor, but the crops do not come on these easy terms.

The best thing to be done is to put away this procrastination, open the muck mines in good earnest, and make a business of manufacturing fertilizers at home. This is the season to enter upon the work vigorously, the hay harvest is gathered, the swamps are not full of water. Invade them with the spade, and throw up the long lines of muck, the more the better. It is a safe article to have on hand, grows better by keeping, is the true riches of the farm. Use special fertilizers only when you have made the most of the resources of your farm for making manure.

Remarks.—Whether we should agree precisely with this writer, on the amount to be made from each animal is no sort of matter. His idea is right—not right, as almost no general advice can be, to be taken and swallowed whole, but to be varied in accommodation to the circumstances of each farmer.

If the farm is so destitute of materials for composting (a rare case) that it would cost one half, or even one-tenth as much per ton to get these materials together, as to purchase some concentrated fertilizer, we see not why the farmer should not castabout for concentrated portable manures, as the cheapest source of fertility within his reach. At any rate he would manufacture a less amount of home manure, than a farmer in wholly different circumstances. But many of our farms so abound in materials for composting, that it is for the interest of the owner to prepare

even more of the home manures, than the foregoing extract suggests.

We are far from discouraging all expenditure for concentrated manures, as we presume the editor of the *Homestead* is. The produce of the country flows to the city; and it must flow back again in the form of concentrated manures, or the country will eventually be deprived of its ammonia, phosphates and alkaline compounds. Eventually, when men become honest, or, if that time is too long in coming, when they shall be convinced that honesty is the best policy, a brisk trade, profitable alike to the farmer and the vender of manures, will be installed between the two, and the alkalies, phosphates and ammonia, of which we have too much in the city, will be retransported, and will render the country increasingly fertile. It is only the purchase of concentrated manures, to the neglect of the home sources of fertility, that we condemn.

HUMBUGS.

OUR natural temperament, and our affinity in feeling and interest with the soil cultivators, would lead us to guard the farmer with all diligence and fidelity against imposition from dishonest dealers, whether in agricultural literature, in fertilizers, or in implements, plants and seeds. At the same time we should dislike to run a crusade inconsiderately, and not well advised against our neighbors, calling them by name or indicating too plainly to be misunderstood, their place of business, saying perhaps what, though it might be true, could not be proved, and being compelled, as some others have been, by the terror of a libel suit, to take the back track in a subsequent number.

There are nursery-men, who sell trees, that none would buy, if they knew what they are; and the buyers loose not only the price, but three times more in the expense of transporting and cultivating them some years, till

their true character becomes manifest; there are manure venders laying schemes to get from the farmers three times as much for some foreign article, little better than good soil, as in their hearts they believe they will avail the buyer; and there are seeds-men, who have made fortunes by mixing old seeds, bought at a nominal price, with a few seeds that would germinate.

There are also buying and selling agencies, offering to buy for you gratuitously whatever you want, or sell anything you have to dispose of, with a view to a good slice in the pocket and the reputation of having acted very generously; as for instance;—you send \$300 to buy a piano; the agent finds a seller who will take \$200, and give a bill of sale for \$300; he pockets the difference, and would have you think he has acted towards you, as kindly as a brother—done your business "*free gratis*" and all right—hopes you will employ him again. Or if you send a piano to sell, the agent finds a buyer, who will give 200 dollars, and take such a receipt, as being "in full" would better answer his purpose and allow a big slice to the agent, or, what is not uncommon, the agent and the person whom he deals with for you are good friends and agree to divide the slice between them, and be contented till they can victimize another subject, under color of possessing remarkable judgment in every body's matters and of being uncommonly disinterested.

If there is anything sour in these remarks, we are sorry, for after all there are true, noble-hearted, just men in all departments of business, and it is more for one's comfort to have an eye on these, and to be hopeful, in humor with the world, and trustful as far as is safe.

It is not quite as easy to show up the humbugs of the day as some believe. Farmers expect a great deal in this line of their agricultural journals; and they have a right to; but sometimes these journals get swung over to the wrong

side. For ourselves we cannot yet brag of having called all humbugs by the name of those who hatch them. There is in us a sort of constitutional antipathy to "calling names." We almost dislike to call the Prince of darkness by his right name; and much more the fraudulent dealers in farm appliances, who deserve a worse name than his. But if we cannot boast of as much bravery in the attack as some, we can show some fortitude in defending the right; and if it affords us more pleasure to praise what is good than to frown on what is bad, we will endeavor not to be carried by this weakness, if it be such, beyond the limits of truth. Our readers may rest assured that in commanding to their consideration a book, a fertilizer, a fruit, an implement, or anything that the farm requires, we will not praise it till we know its merits, nor represent it as better than we really think it is. We do not desire a large amount of advertisements; nor do we charge such a price as will lay us under any special obligation to advertisers; and what we say commendatory of any article for sale shall be in all cases our honest, though it may not be always a sound opinion. We are and will be untrammeled—the farmer's friend, and not the friend of those who would sell him a *useless* article, or a *useful* one for more than a fair price.

A SHORT TRIP.

To get away from the dust and heat of the city, we recently spent a day at Riceville, near Long Branch, N. J. While there we strolled into the establishment of the National Fertilizing Company, whose office is at 37 Fulton street, in this city, Jos. C. Canning, agent.

In our last, we expressed an opinion, that this company have control of materials, from which a most valuable fertilizer can be compounded, provided they shall be mixed in such proportions, and so worked down to a fine powder, as to

be easy of transfer and application, and yet retain all the ingredients contained in the original substances, and in such form as to be readily appropriated by plants.

Our opinion with regard to the value of the materials, is confirmed; and a single day's acquaintance with Dr. Harper, the scientific director of the works, is proof enough of his scientific attainments. Dr. H., is one of those social, out-spoken men, who, if practising to conceal ignorance of what he professes to know, would betray at once the true state of the case. Educated under the best analysts of Germany, and having much experience in analytical chemistry, he is well qualified to do what the company require—to compound the green sand marl, of which they possess an unlimited supply close at hand, with fish, which are taken in any quantities, within a stone's throw of the factory, and ground bones, together with such chemical preparations as cannot fail to secure a retention of all the ingredients contained in all.

Hitherto the great trouble has been, in manufacturing portable fertilizers, to retain the original value of the materials. It availed nothing that night-soil contained ammonia, if it was mostly lost in the manufacture of it into a portable poudrette; or that phosphatic guanos had contained ammonia once, since there is little of it left, when it reaches the farmer's premises. This difficulty Dr. Harper has overcome; and the original value of the marl, the fish and the ground bones, we are confident will be retained in compounds eminently adapted to improve the soil, and at the same time to afford pabulum to growing plants.

This company, possessing, as it does, an exhaustless supply of the green sand marl, and excellent soundings for taking fish, and ample means for compounding them skilfully with the other ingredients, can, as we said in our last, do a good thing for agriculture as well as for

themselves, if they will; and as our object in writing is to inform our agricultural readers, reliably about what concerns their interest, we will separate what we think we *know* on this subject from what some might say is only favorable conjecture, or a sort of constitutional propensity to think well of men's intentions.

1st. We *know* from personal examination that this company has the power to manufacture a most excellent fertilizer at a very reasonable price—to enrich itself and to enrich its customers, while most venders of manures, it cannot be denied, have enriched themselves at the expense of their customers. Here we would "call names" but for reasons given in our item on humbugs.

2nd. Then the National Fertilizing Company *will* do what we have stated positively that they *can*, we have good reason to believe; and we will say, that from an acquaintance with their general agent, with the scientific worker at the manufactory, and with the president and a few of the stockholders, we have formed high expectations that they will not spare the more costly ingredients, that they will not as some others have done, make a splendid article for the fancy farmer who can trumpet them and an inferior one for the quiet farmer, who works ever, but makes little noise in the world; that they will on the other hand bring the article to one standard of value for all, and that of such excellence and at such a price, as will make it as much for the farmer's interest to buy as theirs to sell. This is what we hope, and what we pretty confidently expect.—ED.

INSECTS.

PROFESSOR ASA FITCH says, in his new contributions to the Transactions of the New-York State Agricultural Society: "I sometimes think there is no kind of mischief going on in the world of nature around us, but that some insect is at the bottom of it. Certain it is that

these little creatures, seemingly so insignificant and powerless as to be unworthy of a moment's notice from anybody but the curious, occupy a most important rank in the scale of creation, and on every side of us their performances are producing most important results, tending probably in an equal degree to our benefit in one direction, as to our detriment in another."

There are said to be 400,000 species of insects in nature. It is more probable that the real number exceeds than that it falls short of this. Their efficiency for good and evil will never be fully comprehended, except by Him who created them for reasons beyond our ken. Nevertheless the investigations of the entomologist promise us large return of benefits to mankind.—ED.

STARCH MANUFACTURING NEAR NEW-YORK.

THE following paragraph, which we cut from the *New-York Times*, will explain the occasion and the object of an afternoon's excursion, and afford occasion for some remarks, touching the interests of our readers.

"Few persons are aware how many manufacturing enterprises are constantly springing up around this metropolis, not only along the adjacent rivers, but on the Long Island coast, where numerous bays and coves furnish facilities for an easy and direct water communication with the city warehouses. We are led to the above remarks by the recent erection at Glen Cove, L. I., of one of the largest starch manufactories in the country, which was opened on Wednesday by a large delegation from this city, of wholesale merchants, members of the press and others, some 1,200 invitations being given out. The company started at 10 o'clock, in two steamboats, accompanied by Dodworth's Band. They proceeded up the Sound to Glen Cove, twenty-five miles distant by water, where they were received by firing of cannon, display of flags, and reception addresses by Pres. Frost Croft, Col. Coles and Wright Duryea, and by a large turn-out of the citizens and farmers of that region. The visitors passed an hour in going through the buildings,

which cover two acres of ground, examining the process of manufacture in actual operation, witnessing the extensive fire apparatus, which, driven by steam and water, sent up seven powerful streams, and resembled as many fire companies working their engines. A thousand persons then sat down to well-loaded tables, arranged under tents, and after dispatching the usual eatables and viands, ended with an old-fashioned Indian 'clam-bake.'

We do not know exactly the nature of a "clam-bake," having never attended one, but we hope it is a respectable affair, and sober to the end. Such was certainly the celebration to which the above refers—a gathering where the lovers of good cheer could enjoy themselves, and no man's sobriety be offended.

The occasion of the assemblage was this. The Messrs. Duryea and others had erected at Glen Cove, L. I., some twenty-five miles from New-York, an immense starch factory. Last winter it was burnt to the ground. With the energy which gets up again quickly when it falls, they erected another, larger, more substantial, and better guarded against fire. Within the few months which have transpired, they have completed the building, got in the machinery, and set it in operation, at the rate of turning out eighteen tons of starch per day, as good an article, we are bold to say, as the world can produce, besides another preparation from corn, which they call Maizena, specially liked by all good housewives, because they can so readily convert it into delicious puddings, blanc mange, anything but ice-cream, and we partly believe into that.

Passing from the tribute justly due to Mr. Wright Duryea and his co-laborers for the energy and success with which they have so soon covered more than two acres with a splendid building, and recommenced operations, and saying nothing of the entertainment except that it was at once gay enough for the

gayest and sober enough for any body, and munificently provided, we come to our favorite subject, the bearings of this enterprise upon agriculture.

It should be understood, that the world is getting very much starched up of late years. We cannot "go a courting" and get married, nor die and be buried decently without starch. Look at the wonderful increase in its manufacture and use. "The starch made in Great Britain in the year 1820 amounted 4,500,000 pounds; in 1830 to 6,000,000, and in 1835 to 8,000,000." Now, this one factory has all the appliances for turning out 10,000,000 lbs. a year, 2,000,000 lbs. more than all Great Britain and Ireland produced in 1835.

In the meantime the potato crop has partially failed. To say the least, it cannot be relied upon for the manufacture of starch as formerly. Indian corn, according to present indications, must take its place. As the manufacturer requires about 2 lbs. of corn for one of perfectly pure, refined starch, such as the Duryea Company are making, their aim being to beat the world in the purity and fineness of the article, and their energy and perseverance being, in the estimation of those who knew them best equal to the aim, it follows that they will work up 20,000,000 lbs. or 400,000 bushels of corn in one year. Here is something for the farmers to think of; 400,000 bushels for one year's work! But this is not all. Other establishments are, and more will be, in operation, using up and creating a market for this staple of the farm. Nor is this all. Heretofore, till a recent period, we have imported large quantities of starch. Such establishments as the Messrs. Duryea's, will contribute much to turn the tables and make us exporters. If the potato should not recover its pristine vigor, we see no way in which the nations of Northern Europe can supply their laundries and the immense consumption of their manufacturing establishments with

this article so economically as from our corn fields.

According to an Indian Legend, beautifully detailed by Longfellow, the Great Spirit gave corn to Hiawatha, in answer to his prayers, fastings, and yearnings for the good of mankind. We would rather say, as of all the Divine gifts, that it flowed from his own exuberant goodness. But we agree with the legend sung at Minehaha, laughing water, that when he gave it, of all his natural gifts, this was the best. It has been nearly 400 years since corn began to be cultivated by the white man, and its value is yet but half comprehended anywhere in the civilized world. We suppose our descendants will laugh outright when told that in the whole United States, only about 400,000,000 bushels a year used to be grown in the middle of the 19th century.

Indian corn, by analysis, contains about 70 lbs. of starch to the hundred, 12 lbs. of albuminous substances, and 9 lbs. of oily matter. Everybody, we suppose, knows that starch, in the animal economy, is mainly for the supply of the lungs with carbon; the albuminous compounds for the production of the muscle; and the oil for the laying on of fat. Corn, then, possesses all the requisites of animal food in a high degree—those for respiration, for muscle forming, and for fattening.

As food for man, it would be as nearly perfect as any one kind, but a variety is undoubtedly preferable. Our observation, (we are not quite sure it is correct, but think it is,) is that in those sections of the country where the old corn-bread and the hasty-puddings were longest kept in vogue, the people longest retained that rotundity of form and vigor of body which characterized our forefathers; and we cannot but think that if we still consumed more of the thousand and one choice dishes, which our housewives know better than any other people how to manufacture from corn meal, it would

be better for us, both physically and economically. But as there is no disputing of tastes, and as economy is an ignoble word in the dictionary of too many, every one must choose for himself. Sumptuary laws would not be to our liking. But for ourselves, we go in for hasty-pudding occasionally, the corn-bread now and then, the corn starch, blanc mange and maizena cakes, and all the rest; and when our Southern friends talk of "Hog and hominy," we think the hominy the best part of the food.

Clothes and food are the great wants of our physical nature. It would be interesting to inquire to what extent these wants are to be supplied from the corn plant.

As regards clothes, it is true we do not wear the corn plant about us as we do cotton and flax; but if corn is to be the world's dependence for starch, as we believe it is, then corn will enter very largely into the preparation of our clothes, both in the manufacture of the cloth, and in cleansing and smoothing them from week to week. A single manufacturing establishment in Massachusetts is said to have used the starch made from 200,000 barrels of flour in one year. If so, this gives some idea of the vast amount of corn-starch that will hereafter be used in the factory and the laundry. So much of corn as a means of clothing us.

Of corn as a food for man we have already perhaps said too much. As a food for beasts, there is not its equal. The growth, the products, the labor, and the fattening of our domestic animals must come largely from corn. The consumer of meats, though he may despise "hot corn," and "Johnny cakes," will be indirectly a consumer of corn, because his beef-steaks, mutton-chops and veal-cutlets will be made largely from it.

On the whole, we "reckon" the country will want a thousand million bushels before many decades will have passed, and we are confident that hungry mil-

lions in Europe will hereafter seek safety from our corn crop. Corn of the first quality is at this moment selling for about as much as wheat. An acre will give at least twice as many bushels; and if more acres are put in next year, probably the market will not be glutted.

AGRICULTURAL EXHIBITIONS IN MASSACHUSETTS IN 1858.

THE following is a correct list of the times and places of holding the County Agricultural Exhibitions in Massachusetts the present year:

Essex, at Danvers, September 29th and 30.

Middlesex, at Concord, September 29.

Middlesex South, at Framingham, September 21 and 22.

Middlesex North, at Lowell, September 15, 16 and 17.

Worcester, at Worcester, October 6 and 7.

Worcester, West, at Barre, September 30.

Worcester North, at Fitchburg, Sept. 24.

Worcester South, at Sturbridge, Sept. 29.

Hampshire, Franklin and Hampden, at Northampton, October 13 and 14.

Hampshire, at Amherst, October 12 and 13.

Hampden, at Springfield, last week in Sept.

Hampden East, at Palmer, October 5 and 6.

Franklin, at Greenfield, October 6 and 7.

Berkshire, at Pittsfield, October 6, 7, and 8.

Housatonic, at Great Barrington, September 22, 23, and 24.

Norfolk, at Dedham, September 28 and 29.

Bristol, at Taunton, September 22 and 23.

Plymouth at Bridgewater, September 29 and 30.

Barnstable, at Barnstable, October 6 and 7.

Nantucket, at Nantucket, Oct. 13 and 14.

The Horse Show at Springfield will be held under the auspices of the Hampden Agricultural Society, September 14, 15, 16, and 17.

CONNECTICUT.

- Windham Co., Brooklyn, Sept. 29—Oct. 1.
 New-London Co., Norwich, Sept. 22—24.
 Middlesex, Middletown, Oct. 6—8.
 Litchfield Co., Litchfield, Sept. 22—23.
 Greenwoods, Winstead, undecided.
 Tolland Co., Tolland, undecided.
 Fairfield Co., Danbury, Sept. 21—24.

SALT AS A MANURE.

MR. CHRISTY, an eminent and successful farmer of Carrigun, Ireland, uses salt as a top-dressing for grain crops, at the rate of about four cwt. per Irish acre, which tends to stiffen the straw and prevent lodging. It is generally applied at two different times, which is far the best plan when used as a top-dressing.

TO PREVENT FLIES FROM TEASING HORSES.

TAKE two or three small handfuls of walnut leaves, upon which pour two or three more quarts of soft cold water; let it infuse one night, and pour the whole next morning into a kettle, and let it boil for a quarter of an hour. When cold it will be fit for use. No more is required than to moisten a sponge, and, before the horse goes out of the stable, let those parts which are the most irritable be smeared over with the liquor, viz.: between and upon the ears, the neck, the flank, etc. Not only the lady or gentlemen who rides out for pleasure will derive a benefit from the leaves thus prepared, but the coachman, the wagoner and all others who use horses during the hot months.—*Prairie Farmer.*

QUESTIONS AND ANSWERS.

"WILL you give, in your useful work, the best, most simple, and sure way for farmers to make their own phosphate of lime?"—T. T. T.

This has been for some time before us. The writer, we believe, means superphosphate. Bones are two-thirds phosphate of lime, and the rest mainly gelatine and oil. If burnt, the latter are dissipated, and the remainder, about two-thirds of the whole, is phosphate of lime, calcined—reduced to a powder by heat.

The objection to burning bones is, that the gelatine and oil are mostly lost by the process. But if you have bones which have been through the soap-boiler's hands, this objection ceases. The bones want to be reduced, either by burning or grinding, to a fine powder. Where there is no bone-mill at hand, they may be burnt without any great loss, if you will burn them at a slow, smouldering heat, on a rainy day, in which case the smoke and soot will mostly fall back and be washed into your soil. Burning bones does not exactly reduce them to powder, but renders them so porous and brittle that they may be reduced by such means as the farmer has at hand. We would not, however, recommend the burning of bones, if there is a bone-mill at no great distance.

The bones being reduced to powder, or at least to small pieces, the finer the better, by such means as you can command, add to them, in a vat, or some wooden vessel—a molasses hogshead, sawn in two, will answer—from one-fifth to one-quarter their weight of sulphuric acid, diluted with four times its weight of water, and stir the mixture several times a day, till chemical changes are indicated by pretty high degree of heat. This will be within a few hours in warm weather, but much longer, probably several weeks, in cold. When the heat arising from the chemical action of the acid has been kept up for some time, and the particles of bone have nearly disappeared, the operation may be considered as completed. Not all the bone-dust will have undergone the change you desire, but much of it will; and this will have become a quickly-acting manure—adapted to produce nearly its whole effects the first summer; while the remainder will be slow, but sure, distributing itself to the crops of many years.

The change which will have taken place is thus: The sulphuric acid will

have taken from the bone phosphate about one-half its lime and formed with it sulphate of lime—plaster. This leaves about twice as much phosphoric acid for each remaining particle of lime as it had before, which makes it a superphosphate, or biphosphate, either term implying an increased supply of the acid for each particle of the base.

The mixture now will be a portion (probably less than half of the whole) of superphosphate of lime, soluble in water, and therefore quickly acting; another portion (somewhat less than half of the whole) of sulphate of lime or plaster, moderately soluble, and therefore rather slow of action; and probably a portion of the original bone earth, remaining unchanged, slightly soluble, and consequently acting very slowly.

A good way of applying it would be to mix with it dry and finely-powdered muck, sufficient to absorb the water and render it dry enough to sow broadcast; or, if you wish it in the hill, it would not probably injure the seed; but it would be safer, if thrown in somewhat scattering, and slightly covered before the seed is dropped.

"Is it true, as we often hear it stated, that horse-dung expends itself the first year, and that the barn manures generally produce little effect after the second year, and none after the third?"

It is true, that horse manure, unless you have left it under the eves to be washed of the best of its manurial qualities, acts with great promptness, and for a short time only. But how long depends upon the character of the soil. If you leave it near the surface of a hot, sandy soil, it will not last through the first summer.

Corn, upon such land, would actually need an additional manuring in June in order to carry out the crop. If applied to heavy land, its effects would be more lasting, and might extend over several years. The same remarks would apply

to other barn manures. They are more lasting than horse manure, but it is impossible to say how long any one of them will last, so much depends upon the nature of the soil, the depth at which it is worked in, and, we may add, the crop, for some crops take up and consume the manure more rapidly than others.

But there is a sense in which the effect of any manure is perpetual, as lasting as the farm itself; and it is more for the sake of illustrating this than for any other reason that we pen an answer to the foregoing question. Supposing you expend the produce of a farm on it, when is the effect of a load of manure which you buy to cease? We say never. You grow more for it this year. As a consequence, you keep more stock next winter, have more manure next spring, more crops next year, and so on. The effect of that extra load, on the particular acre or rod where you place it, will cease; but its influence on the whole farm will be perpetual. Manure, crops, stock—these are the endless chain in that kind of farming, and each link will continue to be the larger for every judicious investment in manure.

Supposing that the extra load, including the purchase and the labor of application, cost you just \$2, and that you obtain just \$2 worth of extra produce. Is there nothing gained? We say there is; because your farm is worth a little more for it, and will be, just so long as you conduct it on the principle of expending the produce at home.—ED.

A LIVING frog has been found in the coal mines at Evansville, Ind., 300 feet below the surface, closely imbedded in the coal. Between the coal seam in which he lay imprisoned, and the surface, there are two hundred feet of solid sand-stone and coal, and about forty feet of coal, slate and common clay. These are all regular stratifications, that must have required ages, beyond the power of human comprehension to compute to have formed them.

Horticultural.

CALENDAR FOR SEPTEMBER.

FLOWERS.

If the directions in our last two or three numbers were attended to, the present month will be one of much enjoyment to the lover of flowers. The garden will be gay with the Dahlia, the Phlox, the German Aster, and the Hybrid Perpetual Rose. These, with the cooler breezes of approaching autumn, will invite many a listless amateur whose energies may have flagged under the summer heats, to renew that race of pure enjoyment which is so fascinating to the true florist.

Nemophylla, *Alyssum*, *Clarkia*, *Mignonette*, and many other annuals may now be sown in pots and kept in frames to bloom, some in the winter Greenhouse, and others for putting out in spring for the earliest out-door bloom.

Before autumnal rains come on any Greenhouse plants that are in the borders should be taken up and potted, and have protection in a sheltered spot, where they are not exposed to the sun, to establish themselves in the pots before being removed to the Greenhouse; in which, however, they should be placed on the approach of the rainy spell.

Evergreens may be safely removed now at any time if taken up with care, provided their roots are kept covered, so as not to be allowed to get dry when they are out of the ground.

Towards the end of the month *Carnations* and *Pinks* that are layered may be taken off and planted either in the open border or in pots for bloom.

Verbenas in the open ground will now be found to have made roots from the joints of the shoots, and these may now be taken off and potted to bloom in doors through the winter months.

The winter Greenhouse will depend

for much of its beauty upon the care now taken to provide for it. For this purpose some Hyacinths, Narcissus, and other bulbs should be potted as soon as they can be had at the seed stores, which will be about the middle of the month. The monthly Carnations bloom also profusely in the winter, if now put into large pots. Camillias to bloom by Christmas, should now be in the Greenhouse or in a frame. *Bouvardia* is a beautiful family for winter flowers.

Chrysanthemums in pots will now require constant attention in watering.

Greenhouses should have a thorough washing and painting to eradicate insects before filling them for the winter.

KITCHEN GARDEN.

Celery will require attention in earthing up.

Strawberry beds may be planted; the earlier the better. If hot weather occurs, protect the new made beds with a little grass, which will assist the start of the young plants.

Cauliflowers should be sown the middle of the month to be kept in frames through winter.

Lettuce.—Sow for late use, and for protecting through winter.

Cabbage may be sown in a frame the end of the month to stand for planting out in spring.

Radishes.—Sow for succession crop.

Parsley.—Sow to cover with straw or litter for winter and spring use.

Onions.—Sow for sets for spring planting.

Spinach.—Sow and protect on the commencement of sharp weather.

Turnips.—Although late, these may still be sown, if not already in the ground.

ROUGH NOTES ON FRUIT STOCKS.

BY A. S. FULLER, HORTICULTURIST.

We are constantly hearing of failures in fruit growing, and the question comes, What are the causes? (for there are many.) Is it because they are neglected after planting? Is it climate or soil? or is it because the trees are worked on stocks unfitted for their proper development?

We think that to the latter many of the failures can be traced; and to show why we think so, we will give a few rough notes on the stocks now in use. We do not wish it understood that we think all nurserymen are using stocks which they know are unfitted for that which they are applied; but some use such through ignorance, others because they can make more money by a swindling operation than they could by fair and honorable means.

The great strife is, who can sell the cheapest, not who can sell the best. If nurseryman A. can raise pears and cherries two and three years old, and sell them for twenty-five cents, he will get the trade in preference to nurseryman B, who asks fifty cents for his trees, although one of his trees may be worth six of the former; and while he will grow poor with his honesty, A. will get rich by his rascality, and retire from business before he is found out.

STOCKS FOR THE PEAR.—Seedling pear stocks are, everything considered, the best for the pear, either for Pyramids (*dwarfs*) or Standards. That there are a few exceptions to this, we do not doubt, so far as the quality of the fruit is concerned, and no farther. Seedling pear stocks, of good quality, have been quite difficult to get, and as they are so liable to leaf blight at the very time we want to bud them, it has induced many to use anything and everything on which the pear would possibly unite and grow for two or three years, or for a sufficient time to enable the grower to dispose of

them, regardless of what would be their fate in after years.

One of the greatest swindles ever practiced upon a community, is the using of sprouts or suckers, as they are called, from the hedges and old pear orchards. Thousands of pear trees have been grown upon the sprouts, and sold to people in all parts of the country, and they are now reaping an abundant crop of sprouts instead of fruit; for it is an undeniable fact that trees grown upon sprouts will produce sprouts again, and not much besides.

We can offer no remedy other than to dig them up and burn them, root and branch, and then send to some nursery where they do not practise such robbery.

The apple is worthless as a stock for the pear, as the affinity between the two is not strong enough to last but a short time at best. The union being a forced, instead of a natural one, they will almost invariably break off as soon as they come into bearing, if they do not before.

The American thorn, *Orataegus*, has been and is still used to bud some varieties of pears upon, with quite good success. But whether the trees will last long, or produce well, remains to be seen. We fear they will not.

The Anger Quince, next to the seedling pear, is undoubtedly the best stock in use, but should only be used when dwarf trees are desired, but never for standards. The quince being only a small tree, or a large shrub, it is folly to suppose that large, tall trees can be grown upon them as healthy as upon a stock which grows to a large tree. When small trees are planted, worked upon the quince, and half standards are desired, they can be planted deep enough to give the pear a chance to strike root, and in that case, with judicious pruning, the dwarf can be changed into a standard.

(If we understand Mr. Fuller rightly, he does not wish to be understood as re-

commending this mode of cultivating half standards, having some fear that the rotting of the old stock will produce disease in the new tree.—Ed.)

That all and every variety of pear will succeed equally well upon the quince, experience has proved to be absurd; and here is the secret of many of the failures in dwarf pear culture—the undertaking to grow every variety of pear on any variety of quince that can be had the cheapest.

Many people suppose if a quince stock comes from Anger, France, it must be as a matter of course, the Anger quince. This is a great mistake; for the quince known as the Anger is a distinct variety, a much stronger grower, than the Orange Quince, the variety most common to this country.

The French nurserymen, being no more given to honesty than those of our own country, very often put in anything of the quince kind they happen to have on hand; and they happen to have very often a large quantity of the Orange, as that variety strikes from cuttings more readily than the true Anger.

As some may deny this assertion, we will, if they wish the proof, show them fine trees of Orange quince, now in bearing, on Long Island, which were imported directly from Andre Leroy's nursery, *as the true Anger Quince*. But there is nothing strange or wonderful in this, for if they will make so many mistakes in other things, why not in this, when there is something to be made out of it.

PLUM STOCKS.—The wild plum of our Western States makes a good, if not the best, stock for the plum, being perfectly hardy, and if grown from seed gathered from the wild tree, are less liable to disease than any other stock. It should be budded or grafted as near the root as possible, as many varieties grow so much faster than this stock that they grow over and form a bulge at the place of union, which gives a bad ap-

pearance to the tree if it is above ground.

Many other varieties are used for stocks, but they are generally not as hardy, and more liable to disease, and there are some varieties, one tree of which would fill a small garden with succors for all time to come. But there is one stock used for the plum, to which we wish to call the attention of all who ever expect to plant a plum tree, especially here at the north, and that is, the peach. Budding the plum on the peach is a piece of robbery practised, and by some nurserymen to a great extent, and thousands of this worthless trash have been sent to the States of Wisconsin, Iowa and Northern Illinois, where the peach will not live unless in a very favorable position. How can people expect their plum trees to live and flourish if worked on peach roots, if the peach itself will not thrive in their locality? We do not think any man in the Western States would buy a plum tree on peach roots, if he knew it. The peach is a short-lived tree at best, even in this locality, and entirely unfit for that purpose, under any circumstances, or any place.

Why is it used? Simply because plum stocks are generally worth from ten to fifteen dollars per thousand, while peach stocks can be raised for one or two dollars; and further, you can in most cases get a tree in one year on the peach, of the size of a two years tree on the plum; and therefore they grow to a valuable size much sooner than on the plum. We know of one firm, that has sent large quantities to Wisconsin and there they are peddled out at thirty to forty cents each, while the honest nurseryman living there, who may have plenty of good trees, and on good stocks, must look on, and see his trade ruined and the money which rightfully belongs to him paid for this *trash* by people who like to have things that have been brought a great way and from some great establishment.

This is not only applicable to the people of Wisconsin but to those of this State. They will send to Europe for many things that can be bought cheaper and better at home, because they like to have their name known among the great nurseries of France and England, and have it said they have imported large quantities from head-quarters; and if they get cheated they must cheat in turn, or else they could never keep up their establishments.

CHERRY STOCKS.—The Mazzard is the best stock for the standard cherry in this climate, but in many parts of the North-Western States it will prove too tender; and in that case the Morello, or common Pie cherry, will be the best to take its place, as it is the hardiest of all the cultivated cherries. As it is only a small tree, it can not be expected that trees grown upon it will grow to as large size as those grown upon the Mazzard. But as low headed or dwarfed trees are preferable where the winters are severe, this stock is as good as any, if not the best, where the Mazzard is too tender.

The Mahaleb cherry is used quite extensively by some, and is a good stock for dwarfs, but is unfit for standards; and four-fifths of all the trees grown upon this stock as standards, will, by the time they are five years old become diseased among the upper branches, and die off at the top, and throw out branches at the bottom and become sickly, unsightly dwarfs, when, if they had been pruned for dwarfs in the beginning, they would have been fine, healthy, long-lived trees.

Those who have cherry trees, showing signs of being diseased among the branches and upper part of the stem, would do well to examine the stock upon which they are worked before they give up the culture of the cherry and say their soil or climate is unfitted for growing this choice fruit.

If your Apricot trees turn yellow and look sickly, examine the stock and

see if they are not on peach roots, when they ought to have been on plum or apricot roots, the plum being the better of the two. If your dwarf pears fail don't condemn their culture forever, but search for the cause. They may be on apple stocks or on those of the Orange Quince. No matter of whom you have bought them, they should be examined, and if you are convinced, that the stock is all right, then look to the culture, and see if the cause is not there; for nothing will do the grower of trees more *good than to investigate.* But enough for the present. We may show up some other humbugs next time.

ORIGIN OF THE AMERICAN POLYLOGICAL SOCIETY.

ITS INFLUENCE UPON FRUIT CULTURE.

PRIOR to the discovery and settlement of America, the horticultural, as well as agricultural, tastes of Europeans seem to have been in a very crude and uncultivated state; and, from the history of its development, we may fairly infer that much of their present interest in such matters is owing to a reflex influence from their descendants in this country.

The first settlers of our seaboard, on leaving their native land, found no nurseries at hand, from which to draw supplies of fruit trees to plant about their wilderness homes; and, in place of them, they very naturally gathered supplies of the seeds of such fruits as they esteemed most, or could most easily obtain. From these sprang the orchards of the earlier settlers. Their descendants, also too busy with their encroachments upon the wilderness to give much attention to minor matters, obtained their orchards in a similar manner, by means of seeds from these pioneer orchards.

Mainly by this process, the cultivation of fruit has kept pace with the march of emigration westward, until, within the last half-century, the propagation of trees by grafting and budding has become a business, absorbing a large amount of capital, and sending out millions of trees annually, to be planted upon the incipient homesteads of the west.

During the whole of this period, varieties worthy of notice have been accumulating, while the happy adaptation of our climate to the business, has given an

additional impetus; and, more recently, the increased facility of intercommunication with Europe has induced the introduction among us of the varieties brought to notice by European pomologists.

Under such a state of affairs, and with no concert of action among growers, it is not surprising that our pomological nomenclature should have fallen into almost inextricable confusion. Up to the commencement of the present century, very little seems to have been written on the subject. Since, the writings of Coxe, Thacher, Fessenden, Prince, Floy, Manning, Kenwick, and others, have done much to remedy this state of things. But in their days books were not the common things they now are, and these works were read by comparatively few men; while the mass of people still clung to their local names, or invented yet others to increase the confusion.

Within the last twenty years, the opening up of the unparalleled fruit region of the Northwest, the cheapening of books and papers, together with the advent of such popular writers as Downing, Thomas, Barry, and a host of others, have given a tenfold impetus to *experimental Pomology*, till at the present time it is no child's play to become acquainted with the rarities as fast as they are paraded before the eager public;—to say nothing of making the acquaintance of older candidates.

To bring order out of this chaos of names, to determine what varieties are no longer worthy of cultivation, to establish rules for the introduction and naming of new ones, and to disseminate a taste for fruit culture throughout the country, is the mission assumed by the American Pomological Society which is to hold its seventh biennial Session at New-York, on the fourteenth of September next. A society numbering among its members the most scientific, efficient, and thorough pomologists in the country; and whose labors are in an eminent sense labors of love.

On their tables, at the approaching exhibition, will doubtless be seen, with the highest assurance of correctness, the favorite fruits of the North, and of the South, of the East, and of the West, with their "blushing honors thick upon them," and all oblivious of the bickerings, jealousies, and raids that too often distract and alienate the people of their native regions.

Heretofore Michigan, although confessedly one of the best fruit growing States of the Northwest, has been only occasionally represented, either by delegate or specimens of our production; and, in consequence, many errors of our nomenclature remain uncorrected, the capacities of our State are to a great extent unappreciated abroad, if not at home; while our pomologists lose one of the most favorable opportunities of becoming practically acquainted with the fruits of other regions.

The questions may well be asked, Are we not standing in our own light by pursuing this course? How much do we suffer in these respects, by allowing our *commercial* capacity in the way of fruits to be underrated? How many emigrants, seeking locations at the west, for horticultural purposes, pass us by from sheer ignorance of the advantages our State has to offer?

The fact is but imperfectly known, even at home, that in three fourths of the settled portion of our State, the apple trees have suffered but little during the past severe season, while throughout Iowa, Illinois, Indiana, and even favored Ohio, in many cases, nearly whole orchards are swept away.

A direct trade is growing up between the lake region and Europe, by way of the St. Lawrence, which will enable us to ship our fruits to foreign markets with safety and dispatch; thus giving us an equal share in the advantages so long held by eastern fruit growers.

If, then, we would not put aside the advantages so temptingly held out to us, and yield the precedence to those of less capacity, but more ambition, I would say, appoint your delegates; produce and send forward your specimens, and see that they are duly placed upon the tables of the society. Every man who produces a tree, or a bushel of fruit, for sale, has a direct interest in the matter.

T. T. LYON, in *Mich. Far.*

What the above writer says about the labors of this Society being a labor of love, is literally true; and what he suggests of the benefit to Michigan of being represented at its coming meeting in this city on the 14th and 15th of September, is as important for other States as for that. Fruit growing is of vast importance to this whole country. Cli-

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mate, soil, everything but the *will* of the people, and that is fast coming right, proclaim that we *can* and *should* have enough and more than enough for ourselves—much to export—of the choicest fruits. A few earnest men from each State, attending these sessions, can not fail to obtain knowledge that will be valuable to them, nor to diffuse it, on their return for the benefit of others. But to get good and to do good, is a *labor of love*, as we understand it.—Ed.

THE LAWTON BLACKBERRY.

Its Cultivation—How differing from that of other Blackberries—Agreeing in nearly all respects.

BELIEVING, as we do, that the choicest fruits should abound on the farm, and be enjoyed at the farmer's table, and that among these the blackberry is important, as affording a supply of delicious fruit, for a month or more, when few other fruits are in perfection, we have contemplated the preparation of an article on its cultivation, as the appropriate season for commencing a plantation should approach.

But finding it difficult to be satisfied on some points, and wishing to make our instructions truthful and reliable in every particular, we consulted, among others, Mr. WM. LAWTON, the well known cultivator of choice fruits; and have received from him, together with many valuable hints on the culture of the small fruits generally, his circular, concerning the characteristics, best modes of culture, etc., of his famous blackberry. We give it below; and in doing so we feel that it is but fair to that gentleman to give the accompanying testimonials—a thing which nothing would induce us to do, did we not know full well that they are no trumped up testimonials, from dubious authorities, about a thing of doubtful utility; but are, on the contrary, as the reader will perceive, from reliable sources, and about a matter now universally conceded

to be of great value and general interest.

Before copying Mr. Lawton's rules for the cultivation of this fruit, we will say that we believe the same rules will hold with regard to the cultivation of other varieties of the blackberry, and of all hardy varieties of the raspberry, with the following exceptions;—1st, As the Lawton blackberry grows vastly larger than any other, the smaller varieties may be put much nearer each other, say four feet each way; and the more common raspberries a little nearer; 2d, Many varieties require a support, whereas this, if rightly pruned, does not; 3d, the less hardy varieties of the raspberry need protection in the winter—to be laid down and covered—while this will endure the coldest winter unprotected.

The following is Mr. L.'s circular, with the purely business portions, which will be found in his advertisement, omitted.

THE LAWTON BLACKBERRY is unique, and not, as some have been led to believe, the common "New-Rochelle Blackberry," *improved by cultivation*. It differs in shape, size and quality from all others. Is perfectly hardy, enduring the severest winters without protection. The fruit is delicious, having small seeds in proportion to its size; is a prodigious bearer, and in any *good farming soil*, the stalk, leaf, flower and fruit, will grow of mammoth proportions.

CULTIVATION.

On receiving the plants put them out with as little delay as possible. Examine the roots, and if not moist and in good order, soak them for some hours in a puddle made of rich soil; then prepare a suitable trench, and cover them with garden mold, where they may remain in safety until planted.

Soil.—Although singularly productive on any good farming land for a permanent plantation, a rich, loamy, and rather humid soil, well manured, is recommended.

Planting.—If put out in a dry season, throw into the place assigned to each plant about a gallon of water, and allow

it to settle away; then regulate the earth for its reception, and put in the roots about three inches deep; a proper humidity of the soil will thus be preserved for a long time. Watering upon the surface hardens the soil, impedes the healthful influence of the air and dew, and often proves fatal to the plant.

Distance.—Against a wall or garden fence, plant them five feet apart; where they can be approached on either side to gather the fruit, only four; for field cultivation, allow at least ten feet between the rows (*all of which space will be required the third summer,*) for the convenience of gathering the fruit, when the plant has attained its full size and strength. Any gardener will know how to occupy the superfluous ground until required for the proper cultivation of the plant.

First Year.—In forking up or weeding the ground, be careful not to interfere with the growth of the new shoots, as they constitute the bearing wood for the following year, and if they are destroyed the plant is lost.

Second Year.—The plants will be firmly rooted, but of medium size only. Before the buds put forth in the spring, reduce the length of the leading shoots about one-third, and shorten also the laterals, and they will produce a crop of good fruit without further care, besides furnishing vigorous canes for the ensuing season.

Third Year.—The plants will now be in full bearing, and must be pruned and managed with due regard to their extraordinary size, productiveness and increase. All the old wood having decayed during the winter, should be removed early in the spring. Then select two or three of the best shoots in each hill for bearing. New plantations may be made with the other ones, or if not required for that purpose, they must be cut away close to the surface, and all the straggling shoots between the rows eradicated.

Pruning the Third Year.—Many of the principal shoots will now be from six to twelve feet high, and they may be cut off just below the bend, or reduced about one-third of their length, and in shortening the laterals, the cultivator will have acquired a sufficient knowledge of the plant to exercise a proper judgment; indeed, the pruning and management may no doubt in some localities be varied to advantage; my practice is to

shorten the laterals one-half, so that the plant will remain erect without support.

Props.—If the cultivator shall desire to support the plants, a cheap and convenient way is to put out posts at the extremity of the rows, and extend from them a single wire, to be elevated about 4 feet, and supported at proper intervals by stakes driven in the ground; to this the canes can be easily attached; but if properly pruned, they require no support.

Planting, in the fall, may commence the second week in October, and continue as long as the season will permit; and in the spring, may commence as soon as the season opens, and continue to the second week in May.

TESTIMONIALS.

New-York American Institute.—In the transactions of this Society, published annually by the State of New-York, at a meeting of the Farmers' Club, held on the 2d of August, 1854, Judge Van Wyck offered the following resolution, which was unanimously adopted:

"Resolved, That the Farmers' Club of the American Institute highly approves of the efforts made by William Lawton, Esq., of New-Rochelle, to cultivate, improve and spread that most valuable blackberry, spoken of to-day, and that he has presented to this Club at different periods, both this season and the last, most liberal specimens of this blackberry, so that every member could not only gratify his sight but his palate, with eating as many as he pleased, and thus be qualified to judge in every stage and season of their growth, their superior qualities as regards size, flavor and succulence; and that we do hereby earnestly and decidedly recommend the Lawton Blackberry, as the Club has correctly named it, to public notice and patronage.

By Charles Downing, Nurseryman, of Newburgh, N. Y., in the columns of the Agriculturist, in 1854.—"Having heard a good deal said about the Lawton Blackberry for the past year or two, and knowing that many of the new fruits were overpraised, I made a special visit to Mr. Lawton's a few days since, to see for myself, and I can assure you I was well paid for my trouble. The fruit is large and sweet. It is an enormous bearer, indeed, the quantity (considering the large size of the fruit) surprised me, and the berries were perfect.

BY AMERICAN POMOLOGICAL SOCIETY—
At the fifth meeting of this National Association, held in Boston in Sept., 1854.—Mr. Cabot, of Mass.—"I wish to inquire about Lawton's New-Rochelle Blackberry."

Rev. William Cleft, of Stonington, Mass.—"The Lawton Blackberry has fruited with me for the first time this season; it fulfills all its promises, which is all that need be said of it. Coming just after raspberries, it prolongs the season of small fruits a month or more, and it is a great acquisition. It deserves a place in every garden."

Mr. Pine, of New-York—"It is the most valuable acquisition; very sweet and delicious indeed, and the hardiest plant possible."

Mr. Maurice, of New-York—"It is very large, tender and delicious. I think it the greatest acquisition we have had."

Mr. Clark, of Connecticut—"I never saw anything more productive."

Mr. Saal, of New-York—"I can corroborate what others have said."

Mr. Prince, of New-York—"It is a most remarkable acquisition of the blackberry kind—very sweet and delicious indeed; a great bearer, and the hardiest plant possible."

George Gabriel, Esq., of Stonington, Conn.—"The Lawton Blackberry has fruited with me for the first time this season. It fulfills all its promises, and deserves a place in every garden."

BY THE NEW-YORK EVENING POST, August 14, 1855.—*The Lawton Blackberry.*—We have received from Taylor's, in Broadway, a basket of fruit called the Lawton Blackberry, of enormous size and superior flavor. Mr. Lawton has been cultivating this fruit for some years past very successfully.

From the New-York Working Farmer, Sept. 1, 1855.—The Lawton Blackberry is now fully in fruit in our place, and the crop many times greater than we have ever before seen from any other sort. Some of the canes of this year's growth will measure fourteen feet or more.

We have often heard it said that any of the larger sort taken from the swamps, and cultivated in gardens, would equal the Lawton. We have now satisfied ourselves by actual experiment that this is not so. We had a quantity, said to be of extraordinary size, sent from Dutchess county, N. Y., and we trans-

planted a large number from the edge of the Newark meadows, at the same time that we put out the Lawton. We also manured them in the same manner, but the results are entirely different. The growth of the cane is inferior, and the fruit bears no comparison, either in size or flavor. We are firmly convinced that the Lawton Blackberry is a distinct variety, and is fully worthy of the high encomiums it has received.—EDITOR.

CITY ITEM—NEW-YORK TRIBUNE, Sept. 4, 1855.—*The Lawton Blackberry.*—We have before us a specimen of the fifth week's picking of these berries, and no sign of failure or diminution of size. The fruit is picked and sent daily to market, and sold wholesale at one dollar per gallon.

From the Springfield Republican, of Mass., Aug. 14, 1855.—We have been favored with specimens of the Lawton Blackberry. It is the queen of all berries, of most magnificent proportions, exquisite flavor, and delicate texture.

FROM THE NATIONAL INTELLIGENCER, (Washington, D. C.) Oct. 17, 1855.—*Lawton Blackberry in the Middle of October.*—Professor Page showed us yesterday a bunch of Lawton Blackberries, eight in number, in every stage of progress, from the ripe to the green fruit; it was the second crop from the same root this season. We have now strawberries, raspberries and blackberries in October. What next?

STRAWBERRY CULTURE.

The following letter from F. Aborn to the *Maine Farmer*, contains good sense on the strawberry culture, and a valuable hint about saving the home fertilizers. Some muck, leaf-mold, decayed brush-wood, and the like, which cost the farmer but little to save and apply, together with a few ashes, is all that is needed for a strawberry bed. Here we have bought this summer thousands of bushels of this choice fruit, at from 6 to 22 cts. a basket, which would come to from 8 to 15 dollars a bushel, and thought we had good bargains, such a food and luxury are they. In the country you can grow them for less than \$1 a bushel, if you will follow our advice in our late numbers.

MR. EDITOR:—In your generous notice of the berries raised in my garden, you intimated that you might let your readers into the secret of raising them. I will say that I have gained most of my information from the *Farmer*, having been a constant reader of it since its commencement; but I have also learned something by experience, which I am glad to give to your readers, although the most of people are like the boy, who wanted to learn by experience, *too*.

My land is situated differently from most gardens, having all the wet springy land on the highest parts; and formerly, it troubled me to make anything but wild grass, dock, and brakes, grow, while the clay below was suffering with drought. To remedy this, I dug deep trenches from the wet to the dry land, and filled them with brush. The rich mud thus dug up I spread over the ground, which is all the dressing I have put on.

I think strawberries need transplanting every two or three years. From the last of July to the last of August is the time to do it, and they will bear the next year. They should be set far enough apart to allow of hoeing them, and the runners should be cut off. Leaves, straw, weeds, or anything to keep the ground loose should be dug in.

I need more brush than I can conveniently get, and therefore I would invite all who have a surplus at any time, to deposit it, together with any other refuse, such as coal or other ashes, bones, chip dirt, old boots and shoes, the cleanings of cellars, or anything that accumulates about the house, in my gully, at any time between September and May.

Any person wishing to see how an "old gully" can be made to produce a crop, is invited to call and look at it.

F. ABORN.

Augusta, Aug. 3, 1858.

DO PISTILATE STRAWBERRIES REQUIRE FERTILIZERS?

ED. FARMERS' MAGAZINE.—Your correspondent, Dr. Munn, has attempted in his article on the sexes of strawberries, to prove that we who believe there are varieties of the strawberry, having pistilate flowers only, and therefore barren unless fertilized by perfect flowering sorts are unmistakably in the fog.

If all the strawberry cultivators for the last half century, have been groping their way in the dark, they certainly need light; but we fear rays which he has thrown out, will hardly be sufficient to illuminate our horizon so that we can see as he does. Shall we throw aside all the facts brought forward by intelligent and practical men, where they have planted pistilate varieties only, and have not under the best of culture been able to produce a berry? Certainly not. Only a few days since an amateur nurseryman of New-Haven, Conn., (Mr. Clark,) stated that he sold a large quantity of McAvoy's Superior to one of his neighbor's last year. They were planted and grew finely; but he did not get a berry last season nor this, while the bed which they were taken from produced a fine crop, and has for several years; but it stands near perfect flowering sorts, while that of his neighbor is perfectly isolated from any other variety.

A friend of ours living near Boston planted, some three or four years since, a bed of half an acre of Moyamensing, and as he was a considerable distance from any other garden, and there were no wild strawberries near, a good opportunity of giving this disputed question a thorough test. He let them remain two years without planting any other variety near them, but they were wholly barren. Last spring he planted some perfect varieties among them, and the result was, he had an abundant crop. We might add a hundred similar cases if necessary; for every person who has thoroughly investigated this subject must have met facts that would corroborate the above. Many persons have planted pistilate varieties only, and they have borne well, and that has been proof enough to them that they would do so in all cases. Perhaps they never thought of looking into their neighbors' garden, or to the hedge near by for the secret of their success.

In the country almost every field is full of wild strawberries, and it would

be nothing strange if a few should find their way into some corner of the garden and there bloom in perfection, scattering their pollen over the imperfect flower under cultivation.

The Dr. has brought forward one weapon with which he has attempted to annihilate all unbelievers in his doctrine, and that weapon is Botany. He says that the strawberry, by the system of Linnaeus, which is founded upon the circumstance of the *number* and *position* of the stamens, belongs to the class called *Icasandria*. It includes those plants only, which bear *perfect* flowers, and have *more than 10* stamens always growing upon the calyx.

The *male* organs therefore are *never wanting* in the blossom of this plant, as is generally alleged and believed, but are always found growing upon the calyx, in *every one of them*, as in those of the raspberry, blackberry, apple, pear, peach, plum, cherry, &c., all of which belong to this same class, and have alike *perfect* flowers and are as amenable to the charge of having sexual distinction of their flowers and undeveloped organs as the former. *But I am not aware that such have ever been seen.*

The gentlemen quotes Botany well, and for aught we know, may be a very good botanist; but certainly he can be no florist; for where is the florist, who has not seen a double flowering peach, plum, cherry, and apple? And certainly the organs of these double flowers are undeveloped, and in most cases entirely wanting, although the Dr. may not be aware that such *have ever been seen.*

The botanist was perfectly correct in placing the strawberry in the same class with the apple, pear, &c., for it is the cultivator who has changed the perfect flower of nature into an imperfection, a monstrosity, a deformed flower. The strawberry in the wild state is always perfect, with stamens and pistils in the same flower, and both perfect, performing the part designed for them by nature.

It is by cultivation that this change has been wrought, as the double rose has been produced from the wild single rose.

That there are small undeveloped stamens in the flowers of those that we call pistilate, there is no doubt; and theorists may contend that all strawberries are perfect and will produce fruit with proper culture without the aid of fertilizers; but practice proves their assertions false. Some cultivators have divided the strawberry into three classes, and pretend to have varieties that they call Staminates, possessing stamens only. That a strawberry of this character, having male organs only, will produce fruit is so ridiculously absurd that it does not call for rebutting testimony.

See Virgil's "Mulgere hircos."—ED.

PINE APPLES IN CONNECTICUT.

JAMES STEBBINS, gardener to Col. Colt, exhibited at the last meeting of the horticultural society in Hartford, four pine apple plants, one of which was in blossom, another with green fruit, while the others had each a fully ripened apple. The plants are worthless after bearing once, but are propagated by transplanting the suckers which grow from them. From the sucker to the blossom about eighteen months is required, and from three to four months from the blossom to the ripened fruit. This is the first time the pine apple has been exhibited upon the bush as a product of Connecticut soil.—*Providence Post.*

TOMATO PRESERVES.

TAKE the round yellow variety as soon as ripe, scald and peel; then to seven pounds of tomatoes add seven pounds of white sugar, and let them stand over night. Take the tomatoes out of the sugar, and boil the sirup. Put in the tomatoes, and boil gently fifteen or twenty minutes; remove the fruit again and boil until the sirup thickens. On cooling put the fruit into jars and pour the sirup over it, and add a few slices of lemon to each jar, and you will have something to please the taste of the most fastidious.

Miscellaneous.

WITCHCRAFT IN THE SEVENTEENTH CENTURY.

A RETROSPECT OF EVENTS IN MASSACHUSETTS IN 1692.

THAT we should profit from the experience of the past, is an axiom of wisdom that admits of no dispute. But when we open the page of history to put it in practice, the one prevailing lesson that is everywhere intermingled, to such an extent as to threaten the extinction of all others, is that of *humility*. For one lesson of great deeds and luminous discoveries worthy of imitation, or serving to stimulate our energies and add new luster to the temple of knowledge, we find hundreds that serve only as landmarks to guard us against the crimes, the follies, the fanaticism and the ignorance of the past! Well will it be for us if we are not too proud and self-confident to profit by them!

When looking back upon those times, we too often review them with a mixed feeling of pity, compassion, and self-complaisant egotism; wholly unconscious that we are, many of us, doing our part in this, our own age, to accumulate together an agglomeration of science and an assumption of discovery mixed with credulity, and which promises well to provide ample scope for similar opinions of our generation to be formed by our posterity, to those which we now entertain of our progenitors.

Apart from Christianity, it was not until chivalry, in the fourteenth century, gave some humanizing features to the barbarian character of the warfare which succeeded the fall of the Roman Empire, that the first dawn of modern civilization can be said to have taken its rise. Nor was it until two centuries more of religious fanaticism had desolated Christendom, that the consequences of the Reformation unlocked the minds

of men in general, from the trammels that had then been for centuries coiling more closely, from year to year, around their faculties, and bound them up in more than iron fetters; and so gave freedom to those aspirations that urge the mind to expand itself, and explore the unsearched windings of that labyrinth, through which human wisdom must, in this world, be content to follow the fine-drawn thread that leads to the inmost recesses of the temple of Truth.

But as the wind-tossed billows of the ocean, recoiling from the contest with their rocky beds, fall back upon themselves in angry tumult, and expend upon the wide surface of their upheaving bosom, the remnant fury left by the passing storm, so did the liberated faculties of the seventeenth century, in heedless thoughtlessness, recoil from the fanaticism of system to become the prey of ignorant credulity.

Arrogating to itself a competence not only to avoid error, but to comprehend truth as well as find it, the mind fell an easy prey to the suggestions of credulity stimulated by egotism; and by a strange self-deception, the pedantic religionist who failed by the right use of reason to account for everything he saw, flattered his vanity to the delusion that he solved the unknown problem by ascribing it to supernatural causes. Hence superstition made an easy conquest of reason's seat, and the more comprehensive became his credibility in the supernatural, the more learned was the man!

With such a system of metaphysics, it ceases to be wonderful that the horrible consequences of the notions on *witchcraft* entertained in the 17th century should have arisen; whilst without some reference to the causes that led to their adoption, it is difficult to give the actors in those fearful scenes of misery and

ignorance credit even for sincerity in their professions.

It may be a salutary lesson to us in these days of "table turnings" and "spiritual rappings," to take a retrospect of those by-gone days of witchcraft. And when we see how simply many of their assumed mysterious agencies are accounted for, if we examine them by the rules that govern the actions of the timid and superstitious, and leave out the assumption of superhuman agency, we may derive some consolation, and hope that at least the "Gentleman in black" has not yet got us in his clutches!

The year 1692 was that in which witchcraft was ripe on this side of the Atlantic; and Salem village, now Danvers, in Massachusetts, was the chief scene of its direful vagaries.

In the month of February, in that year, a daughter and a niece of the Rev. Samuel Parris, a minister there, and a girl named Ann Putnam, residing in the neighborhood, were afflicted with some disease. Whether of the same description in each, does not appear. There was an Indian man servant named John, and his wife, Tituba, in Mr. Parris' family. John was persuaded by "our sister, Mary Sibley," so Mr. Parris describes her, to make an experiment by means of a cake that she instructed him how to concoct, in order to discover who the persons were that, they in their wisdom assumed, had "bewitched" the children. The cake appears to have been made after a good recipe. For Mr. Parris, who has, it is said, recorded the facts in his own handwriting, states that after the cake was made, "Apparitions have been plenty, and exceeding much mischief hath followed. By this means it seems the devil hath been raised amongst us, and his rage is vehement and terrible; and when he shall be silenced, the Lord only knows."

Having raised the devil, however, the good folks set about in earnest to lay

him; although in a way by no means according with those rules of Christian charity that Mr. Parris no doubt expounded from his pulpit.

On the first of March, eight woman and one man were committed to Boston jail on the charge of witchcraft. "Our sister, Mary Sibley," was not one of these. Contrary to what we should have thought the prudent course, (seeing that she was the originator of the cake, and might consequently be reasonable supposed to know most about the business,) Mary Sibley was "permitted to commune with Mr. Parris' church, she having confessed that she *innocently* counseled John, the Indian, to attempt a discovery of witches; and having been previously disciplined for such council, and appeared well." How far Mrs. Mary Sibley had or not a friend at court, does not appear. But that she was a meddling-mischief-maker, is pretty evident.

The moral venom quickly spread. The children of the neighborhood, (half frightened by the fears of their elders, and jealous, no doubt, of the notoriety that the passing events gave to their young friends, who were pronounced by their seniors to be the victims of the witches,) now took part in the prevailing excitement, many from the simple effect of fear, and others possibly became emulous of participating in those honors of juvenile martyrdom. Accordingly we are informed that, "Several children began to act in a peculiar and unaccountable manner. Their strange conduct continuing for several days, their friends betook themselves to fasting and prayer. During the religious exercises, the children were generally decent and still; but after service was ended, they renewed their former unaccountable conduct. This was deemed sufficient evidence that they were under the influence of an evil hand, or witchcraft. The children then began to accuse persons by name of bewitching. They were

credited, and those persons imprisoned."

Moreover it seems that whatever care might or might not have been bestowed on the rising generation of that day in other points, *the mysterious* appears to have been fully attended to in their education; for we are told that: "It must be confessed and bewailed that many inhabitants of New-England, and *young people especially*, had been led away by little sorceries, wherein they did secretly those things that were not right against the Lord their God. They would often cure hurts with spells, and practice detestable conjurations with sieves, and keys, and peas, and nails and horse-shoes, to learn the things for which they had a forbidden and impious curiosity. Wretched books had stolen into the land, wherein fools were instructed how to become able fortune-tellers." The learned doctor who has recorded this, might with much truth have added, "whereby they learned little themselves except the art of making fools of men like myself, whose judgment, education, and acquaintance with Christian revelation ought to have secured them against such efforts of folly and ignorance." But no! The doctor swallows the witchcraft, and refers his readers to the Bible for evidence of its truth! With that pharisaical self-gratulation which is the constant companion of fanaticism, he adds, "Although these diabolical divinations are more ordinarily committed, perhaps all over the world than they are in the country of New-England, yet that being a country devoted unto the worship of the Lord Jesus Christ, *above the rest of the world*, he signalized his vengeance against these worshipers with such extraordinary dispensations as have not been often seen in other places." It would indeed have been wonderful if they had!

Thus we see the tricks of a parcel of children, doubtless highly excited by the supernatural fears of their friends and neighbors, first frightened out of their

senses, and then becoming possibly their own deceivers. Whilst the community around, instead of administering to them that wholesome school discipline which they with no measured hand dealt out upon all occasions of idleness, became the dupes of their own fears and their children's ingenuity and folly.

The witchcraft contagion soon contaminated all around. The marvelous always finds ready credence; whilst sober truth waits upon incredulity. Boston, Gloucester, Ipswich, Andover, and numerous other places, speedily produced witches. The delusion offered a ready opening for revenge, and envy, to satisfy their cravings with impunity, whilst superstition and wild fanaticism were equally prolific in providing victims to this Moloch of the age. At first the accused persons were of the lower classes only, but afterwards persons of rank and character were compromised.

It does not appear what became of the nine persons first committed to prison. But between February and September, 1692, nineteen persons were hanged for witchcraft at Salem, on a hill since known as Gallows Hill, and one who refused to plead and thereby put himself upon trial, was pressed to death for his alleged obduracy.

Those executed of course to the last vehemently protested their innocence of the crimes charged upon them. One of them was the Rev. George Burroughs, who had been a predecessor of Mr. Paris, in the ministry of the First Congregational Church of the North Parish, which he resigned in 1683. About a hundred were accused; and finding the direful consequences of the trials, and the certainty of convictions, many of the poor creatures made confessions of guilt, in the vain hope of conciliating the sympathies of their merciless persecutors. But all of these, before they paid the penalty of their ignorance and of the bigotry of the age, retracted their confession, and bore their unavailing testimony

against the barbarity and wickedness of their oppressors.

The credibility in witchcraft being thus firmly established in the minds of so large a part of the community, it will be easily believed that the designing and unscrupulous did not fail to take advantage of the fears of their neighbors. Accordingly we find ample evidence that such was the case, in the accounts that are handed down of the nature of the different modes in which the witchcraft displayed itself and furnished its dupes.

It is stated that "wicked spectres did now proceed so far as to *steal several quantities of money* from divers people, part of which individual money dropt sometimes out of the air, before sufficient spectators, into the hands of the afflicted, while the spectres were urging them to subscribe their covenant with death." For we are told, "The tormentors tendered unto the afflicted a book requiring them to sign it, or to touch it at least, in token of their consenting to be listed in the service of the devil; which they refusing to do, the spectres under the command of the Black Man, as they called him, would apply themselves to torture them with prodigious molestations."

[TO BE CONTINUED.]

OLD TIMES AND NEW.

MR. EDITOR:—In the wanderings of my unfruitful imagination for something to present to your Magazine, I have at length made choice, in subordination to your better judgment, of an extract from a semi-centennial discourse delivered in Charlemont, Franklin co., Mass., as long ago as December, 1799. This is in compliment to a possible class of your readers, who, instead of unwisely inquiring "why the former days were better than these," take an interest in watching the course of things—the advance of improvement in various particulars—from more primitive to later generations.

The extract is as follows: "Though the knowledge of man is chief of the sciences, his circumstances do not a little to educate and form him, and to make him what he is, and also to illustrate his character, so that the school in which the people of a particular age grow up accomplishes for them the double purpose of stamping upon them a certain definite moral complexion, and of furnishing a clew to some just estimation of their particular grade in the scale of human excellence. This renders it proper, in bracing a people through successive periods of time, to notice and mark the peculiarities of place, and the various allotments of Providence, by which they could not be otherwise than affected for good or for evil. Their merits cannot be fully understood without taking all these things into the account."

If one were to draw an intellectual and moral portrait of the aborigines of this country, he could not well vary from the truth should he infer their uncivilized, brutish, and savage character from the fact, that a forest, an uncultivated wilderness, was their place of abode, and that so long as they should be satisfied with such a dwelling, they would, of necessity, continue the same sort of people, making no advances towards a higher and more comfortable mode of social life.

Fifty years ago, this town, in almost all respects, was different from what it now is. And the question now should be, whether changes, continually taking place, are all for the better; whether the less is being lost in the greater, the weak becoming stronger, the narrow and contracted widening into a broader expanse, and that which argued too little cultivation of mind and heart rapidly giving place to the wise application of means to remedy the evil.

Early settlements in this valley were for a long time embarrassed by exposure to Indian hostilities, and by some severe actual sufferings from this quarter. But

during the latter half of the last century agriculture was continually gaining ground in a fair rate of comparison with the same interest in other sections of the country, while manufactures here or elsewhere had scarcely commenced beyond the most urgent necessities of the immediate neighborhood.

I might give you a favorable account of the productions of the soil in this region as long ago as when I first came here to participate in them. True, indeed, science, as now understood and applied in aid of husbandry, had little to do in directing the operations of the laborer in the ordering and cultivation of his farm; but nature was then in her youth and vigor, not broken down by long and hard usage, and a virgin soil, still in greater or less abundance on every man's domain, enabled the proprietor, with a little assistance from art, to realize very satisfactory returns in the proceeds of the labor bestowed.

It may not seem to many a probable fact, though true, that this town at the commencement of my residence here, was, to a considerable extent, the granary of the surrounding country, relieving the wants of others after having provided abundantly for its own. Even that species of breadstuff, which now seems to us as a luxury, "far-fetched and dearly bought," for which the progress of improvement has rendered us almost entirely dependent on the fertile West, was then among the staples of our own farming products, gracing the tables of all, not less in the hovel than in the decorated mansion.

And does this prove the decline of the business of husbandry on the part of those who occupy the ground tilled by the men of a former age? By no means. It proves only that soils and climates vary from one period to another; and that corresponding changes must take place in the kinds of produce exacted from mother earth and to be drawn from her bosom. As evidence of general im-

provement in our agriculture, the same parcel of ground which, fifty years ago, yielded only at the rate of 25, is now reported to be producing 100.

And what facilities for intercommunication, for passing and repassing on the face of the earth, which, unlike the generations of men, one going off and another coming on, abideth forever, had those who went before us on the ground which we now tread?—for next to the fertility of soil as a source of supplies for daily subsistence, is a convenient highway and means of conveyance from place to place important to the prosperity of a country. In this particular, an infant settlement, just emerging from the forest, finds one of its most urgent calls for public expenditures. And though this town, at the time of my first acquaintance with it, had begun to put on the countenance of age, it is remarkable that on the public records no one article stands forth in such bold relief as the continual action called for in providing roads and keeping them in fit condition for use. And, after all, how much remains to be done to remove inconveniences and to guard against dangers?

It is scarcely in our power to do justice to our fathers upon this point, as difficult as we find it to make things comfortable and safe by adding a little of our own ingenuity and effort to the immense quantity of labor which they were obliged to expend in making a beginning and putting matters into a train to become what they should be. Think for a moment how it was with them, when so much earth was to be leveled and smoothed, and water to be bridged, to make their habitations accessible to their neighbors, and to provide a way for the stranger and the wayfaring man to pursue his journey through their coasts. There is scarcely a considerable road in town at the present time just where it was when it first became necessary for me almost daily to use it in the discharging parochial duties. And how long

think you, is it since there was not a bridge across Deerfield River, from one extreme of the town to the other, on which one neighbor could visit another neighbor in sight, and not be in danger of being submerged in the stream and washed into his grave? But now there are not less than three substantial ones, two having one end on our shore, and the other both.

And who has adorned and beautified our highways with these comely trees which stand in elegant order on their margin to comfort the traveler by protecting him from the intense heat of a summer's sun? These are no mean evidences of taste, and of a generous public spirit, and must be put to the credit of those who planted them, not so much for themselves as for coming generations, and for as many as have occasion to come under their shadow. These are valuable fixtures for the earth, which abideth forever.

And what within our limits did the face of the ground exhibit that should be reckoned memorable, as coming taste in architecture, so far back as the era commenced which we are attempting to trace? The men of that period did not live and educate their families in wigwams, nor palaces. They had neither poverty nor riches. They had, indeed, begun to be independent, but had not outgrown their habits of economy and frugality. The soles of their feet did not ache and recoil from treading on smooth pine boards, uncovered with a carpet. They had adopted the rule as a wise one, to wear the old coat until they could spare money to buy a new one.

Here, Mr. Editor, let me stop, with an apology for having troubled you with so much that I fear may be considered out of place, and quite unworthy of an insertion in such a journal as your Magazine professes to be, and really is.

J. F.

CHARLEMONT, Mass., Aug. 21, 1858.

One thing our aged friend has not

mentioned, which has always seemed to us very remarkable of those mountain people where he resides—their military spirit. It is now asleep, but would be mighty easily waked up if occasion offered. Within our own recollection, about half as far back as his, each of these towns, Charlemont, Buckland, Heath, and others, kept up a company, drilled by frequent trainings, of from 100 to 180 men each, as completely armed and uniformed (dresses not as fine but as showy) as any standing army in the world; and although it has since been our lot to see troops of the highest character and discipline, we do not believe we have ever seen better discipline or more exact and soldier-like evolutions than among these same mountain militia. It was a matter of town pride to win on the annual "muster-day;" and no effort was too great to shine and be distinguished on that day. The blowing at each others' brains with blank cartridges, the magnificent appearance of the troops, and, above all, the charge with the *bagganut*, when the powder failed, when steel met steel, but nobody fell, we shall not forget.—ED.

THE SUBMARINE TELEGRAPH.

EUROPE, hundreds of miles distant from the American shores, has been linked to us by the successful laying down of the Telegraph Cable. A great triumph has been achieved, and all the world must rejoice at a success which will long, long be remembered. An age of three centuries' duration will not blot out the names of those generous men who have labored and struggled to make the Submarine Telegraph a mighty success. The distant shores of Europe have been brought in contact electrically with those of the New World.

Millions upon millions of people exult when they contemplate the idea that a cable has been laid between two great continents, by means of which intelligence can be conveyed to Europe almost

in an instant, and as quickly returned.

Commerce—mighty commerce—will look proudly upon this stupendous achievement. Great nations have trembled at the unsuccessful attempts made in laying the cable, but now exulting thousands rejoice at a great success—a mighty triumph of art, skill, and consummate ingenuity. Perfection seems to have attended the arrangements in stretching the wire from the coast of Ireland to the American shores. The hand of Providence has been attentive; and CYRUS W. FIELD will not soon be forgotten for his labors in behalf of the Submarine Cable.

The great newspaper presses were in doubt about success in putting down the cable, and dealt severe blows on the heads of the managers, but this hopeful period of our national existence has changed the harsher tones of the press, and now all shout, "Success"—"triumphant success."

The bottom of the ocean has been found to be undulating like the earth's surface, wavering, and a fathomable sea of water. The long cable, two thousand miles in length, has been submerged in many places to the enormous depth of two miles. The electric spark will be transmitted over the wire, and under this vast sheet of water, passing from continent to continent, and from nation to nation, almost instantaneously!

Continental Europe—a wide-spread country—will be most everywhere benefited by this glorious triumph of two mighty nations combined.

The Czar of all the Russias will rejoice; Constantinople will be pleased, and old Moscow will be thrilled at the telegraphic connection she will have with the American continent.

War! Shall we *have it* with the nations of the Old World, after so signal a triumph has been accomplished as stretching the cable from continent to continent? No; we think all must be peace—lasting peace! Shall we have a

report of the Queen's speech in an hour after its delivery? All the world is willing to exclaim, "It is true." Shall the triumph of the party electing a President in 1860, be heralded throughout Europe within an hour after the fact is known to American citizens? All the people say, "We believe such may be the fact." Shall the death of a great man in Europe be known here within an hour after he expires? The telegraph will say, "I transmit you the sad news." Shall the rise and fall of stocks in America be known in the Old World forthwith by telegraph? All exclaim, "That fact shall be known in less than three hours."

A new epoch among the nations of the earth is to be chronicled, and henceforth we can proudly say, "We have a submarine cable binding us, we should hope, in links of friendship, of lasting duration, to the mightiest nations of the earth!"

GRANDPA'S LETTERS TO BOYS.

LETTER II.

YOUTH, THE BEST TIME FOR FORMING CORRECT HABITS.

WELL, boys, here I am again with another letter. I wish I had the opportunity of meeting with you and talking to you; I know I could say much more than I can write. I want to say to you that I feel very much interested in your welfare; and nothing would please me more than to say something that would have a good influence on your moral character through life. A great deal depends on the boys of our country. In a few years those that are men now will be gone, and the boys will fill their places. Do you not see then that it is very important that you should act your part well, and try to fill the place of your fathers, with honor and respectability? I hope this is your wish and intention. If so, let me tell you that much depends on the start you take.

When a boy takes a right start, he is more likely to go on in the right way; but if he begins wrong, there is a fearful probability that he will keep on until he lands in destruction, like the boy that was lost in the woods.

But let me ask you, in the first place, whether you have read my first letter, and whether you have determined to take advice? If so, I shall be happy in trying to give you such advice as I think will be greatly to your advantage.

Youth is the spring-time of life, and it is by far the best time to form correct habits. Indeed, almost all habits that are formed, whether good or bad, are formed when young. It is almost impossible either to form or break a habit when old. Whatever we are when young, we are most likely to be in advanced age. So true is this, that it is often said, "In the boy we may see the man."

How important then it is that we begin early to form a character for life! Nor is there anything strange in this. It is all the result of natural consequences. In youth the mind is tender, and more susceptible of impression than at any other period, and the impressions made at this season are not only deeper, but more lasting. Children are often, and very properly, compared to young plants, which are very flexible, and will receive and keep whatever bend you may give them.

There is much truth in the old verse, "Children, like tender osiers, take the bow, And as they first are formed they always grow."

You may give whatever form you please to a young plant or twig; but go to yon sturdy oak, and try if you can bend it. No, it has become too rigid—it will not yield to my impression. This is a very apt resemblance of the human mind, and ought to teach the young an important lesson. Almost all the leading and important ideas that we have through life, we acquire in youth—age and experience mature them. For this reason, youth is the most interesting

season, and I can not but feel a deeper interest in the young than those of any other age. Indeed there is more hope of making good impressions on their young and tender minds, than on those whose habits are confirmed by age. Now, my young friends, I suppose I have said enough for the present. I hope you will reflect seriously on what I have said, and resolve now, while you are young, to form characters for life—I mean *good* characters—for rest assured you will form a character of some sort. Now is your time to lay a good foundation—a foundation on which to build your future usefulness. This will depend on the course you now take. You may be good, great and happy; or you may be worthless and miserable, just as you act now. As in a *natural* sense, whatever seed you sow, you may expect to reap, so in a *moral* sense, whatever sentiments you imbibe, or habits you form now, you may expect will continue with you through life. Now farewell, and be good boys until you hear from me again.

Yours truly,

GRANDPA.

YOUNG MEN LOOK HERE!

We know of a good situation that is offered to an intelligent, prompt young man, over twenty-five years of age, who neither uses, in any shape, intoxicating liquors or tobacco. Salary sure, wages \$45 per month. In casting around through the circle of our acquaintance, we were amazed to find how few there are who would supply the want. Young men! such men will be wanted after this. Even men who drink rum themselves want young men to keep their books, run the trains upon which they ride, direct the boats they travel on, who are sober and clean. To either drink liquor or chew tobacco, will be no recommendation for you for any but the meanest business, and that which commands the lowest wages; while these bad habits will lose you a good situation among cleanly folks. Out with that filthy quid, and eschew the infernal bowl as you would the pure strychnine unmixed with poor whisky.—*Fond du Lac Commonwealth.*

THE FARMER'S CLUB.

We insert the following, from the *New-York Times*, because it contains essential, well-expressed, and important truth, about an Institution which has been abused by one-horse-team critics, in city and country, till it has become difficult for well-meaning men, who do not understand the motives of its revilers, to know what to think of it.

That the American Farmer's Club has its faults, that some go there to talk up a trap of their own, some to talk themselves into notoriety, and others to talk when they ought to know they have nothing to say, and might better hear and learn, than undertake to teach, we do not deny. But we beg to know of what earthly assembly, in church or state, religious, political, or industrial, the same is not equally true. We have never found one.

The business-man's prayer-meeting, in this city, kept up daily for the last ten months, and always crowded, may be cited as no exception to the occasional exhibition of human weakness, folly, or worse. It has been so conducted as to do honor to the heads and hearts of business-men; and no decent man would find fault with its arrangements as a whole. But even there we have met with a man or two who would make money out of the revival by advertising a hymn-book, or talk when he should keep still, or perhaps expose a lack of a liberal, Christian spirit towards another Christian man. Well, we did not condemn the whole affair. We had heard that of old, when the sons of God presented themselves, Satan came also. If foolish men should come into the Fulton street prayer-meeting, or into some of those political caucuses about to be held all over our country, or even once in a great while into the Farmer's Club, it would not be anything new under sun.

The truth is, this club is an institution of great value to the country. It

collects at its meetings, and disseminates, through the daily and weekly papers, a vast amount of valuable information. It is a good and useful institution, with some faults, as everything human has. But the *Times* has told the story of its usefulness, and here it is.

There are "practical men" who have had the boldness to call the Farmer's club a humbug. Certain papers whereof the representatives at the club meetings, getting utterly bogged by the discussions, and unable, for lack of information on the topics treated of, to make head or—conclusion of them, perpetually growl that the Club is a humbug, and its members fogies. Sundry inland city papers, whose conductors are presumed to be up in agriculture, simply because they are not up in commerce, pronounce it a gathering of theorists, whose dicta are only the result of speculation, and all whose experiments are conducted on the rear ends of city lots.

If this view is the true one, there are a good many hard-working, practical men in our suburbs who are wasting one half-day every fortnight, and who will be astounded to learn their stupidity. At a late meeting of the Club, we carefully noted the familiar faces present by way of discovering who the dupes were. In the chair was a gentleman who owns and manages a model farm, whereof the reputation has far exceeded the borders of his native State, and whose opinions on points of natural history are authority in the highest quarters. Two men, father and son, were present, whose whole time is occupied in raising flowers for market. Visiting their garden, the other day, we found no one assisting them, they could not afford to hire—every department of their large business they conducted personally, and they grudged every moment of daylight taken from their labors. But they could not afford to lose the Club discussions, though they never have a word to say, and make no acquaintances there. On the same seat with them were three nurserymen, whose presence, if they were talking men, might be suspected of an advertising intent, but they are seldom heard from, except to put a damper on some theorist's too positive assertion. Another constant attendant says that all he is after is to discover whether he and his father before him were fools.

for always keeping six of the fattest acres of their farm in pasture. Another comes down bi-monthly from his farm to "keep from growing worldly," and only once a year ventilates his speciality, on which, however, the most envious admit that he stands unapproached. We seldom miss the man who takes the premium for the best pears raised within twenty miles of the city, and every process by which he attains success he publishes before all inquirers.

The gentleman who has stocked his fresh-water ponds with salt-water fish, and kept fresh-river fish in sea-water ponds, whose mute tenantry come at the tinkling of a bell, who has bred millions of the scaly tribe successfully, and whose experiments and observations are noticed with high compliments by the Secretary of the Smithsonian Institution, is punctually present, and the Club always has the first announcement of his researches. There are never absent men from Flatbush and Flatlands and the Jersey vicinity, who sit quietly in the back seats, waiting for a hint how to cheapen manures, how to increase their small fruit crops, or what new market is opening for their wares. The practical men are decidedly in the majority. There are, it is true, several active members, whose farming done in their youth, but who come up out of their city offices to get a smell of the turf, and who want to test their theories, evolved from stealthy experiments in laboratories and deduced from the reasoning of chemists and physiologists, by the experience of men who are anxious to give them a trial. We feel that we are getting extravagant, but it is our conviction, nevertheless, based upon a pretty large acquaintance with our institutes, academies and scientific societies, that there is not in the city (and if not here, where?) a more practical congregation of men than the Farmer's Club. Intelligent farmers from all parts of the State appreciate the club and pay it a visit on their arrival here. They are odd fellows who gather at it,—always carrying empty pill-boxes in their pockets to save the seeds of specially choice fruit in, and begging 'slips' at the markets of such fresh plants as are heavy with particularly early or luscious edibles. And to their odd insanities, and to the fact that they ride hobbies, we are indebted for some of our finest seedlings, and the promise that the children

shall eat abundantly of such desserts as the mouths of the fathers never watered over.

ANTS AND FRUIT TREES.

MANY really suppose that ants are injurious to fruit trees. This is not so. Those acquainted with their habits know that they visit fruit trees infested with plant lice, both roots and branches. They are attended by ants, which seem to use them as their milk kine. They are sought by the ants because of a sweet fluid furnished by these lice which supplies the ants with nutrition. This accounts for their being about fruit trees. Take warning, then, when you see the ants busily ascending and descending in regular succession, young fruit trees, or others, and immediately apply ashes or lime to them dew is on; also applying one or both about the roots of the trees infested by them.

THE TOMATO—ITS PROPERTIES.

DR. BENNETT, a professor of some celebrity, considers it an invaluable article of diet, and ascribes to it very important medical properties:

1. That the tomato is one of the most powerful aperients of the *Materia Medica*, and that in all those affections of the liver and organs, where calomel is indispensable, it is probably the most effective and least harmful remedial agent known to the profession.
2. That a chemical extract will be obtained from it which will altogether supersede the use of calomel in the cure of disease.
3. That he has successfully treated diarrhea with this article alone.
4. That when used as an article of diet, it is almost a sovereign remedy for dyspepsia and indigestion.
5. That the citizens in ordinary should make use of it, either raw, cooked, or in the form of a catsup, with their daily food, as it is a most healthy article.—*Repository*.

LADIES are like watches—pretty enough to look at—sweet faces and delicate hands, but somewhat difficult to "regulate" when once set "agoing."

A FITTING TRUTH.—Woman's partiality for thin shoes is to be accounted for by her insuperable dislike to a thick understanding.

From the New-Jersey Baptist.

LINES.

WHEN the last beams of sunlight
Long, glimmering shadows throw,
I often sit and think of one
Who died long years ago.
She was a fair, a gentle girl,
Fragile as flower could be;
She always seemed so beautiful,
So angel-like to me.

Oft when in groups of joyous youth,
She joined in guileless mirth;
I've gazed on her sweet face, and sigh'd:
Too beautiful for earth.
And so it proved—one Autumn,
When cold winds came once more,
She seemed to be less joyous
Than e'er she had before.

Each day she grew more sweetly sad,
And O, methought that now
More pearly whiteness than before,
Rested upon her brow.
Soon on each cheek a crimson spot
Shone through her clustering hair;
And then, alas! I knew full well
Consumption's seal was there.

Oh! pen nor tongue can e'er describe
The grief that rent my heart;
When thus I saw how soon from earth,
That dear one must depart.
The Autumn winds kept sighing still—
She, fading day by day,
Like frail and with'ring Autumn leaves,
Shone brightest in decay.

With dying leaves, she lov'd them so,—
We wreathed her pall'd brow;
How fair she looked, the bride of death!
Ne'er beautiful as now.
November came, the withered leaves
Lay scattered all around;
We bore away our faded one,
We laid her in the ground.

Since then, upon life's boist'rous sea,
I've breasted many a storm;
And thought no doubt 'twas better far
Earth took that fragile form.
For she, that fair, that gentle one,
We laid beneath the sod,
Died trusting in her Savior's blood,
And went to dwell with God.

SCOTCH PLAINS, Aug. 2, '58.

CORA.

Remarks.—Cora has a gift for the tender, the pathetic and the truthful, which we hope she will continue to exercise; and if she does not send some of her beautiful heart-thoughts to us, we shall be inclined to catch them flying, as we have in one or two instances, where we can find them.

PICKLED TOMATOES.

To a peck of green tomatoes, add three medium sized green peppers. Chop them fine, and place in a deep dish alternate layers of tomatoes and salt; let them remain twelve hours, and then squeeze the mass dry, and put down in jars layers of the tomatoes, and *ground* allspice and cloves. Boil the vinegar, and when cold pour it over the mass, in quantity sufficient to cover it.

NO MAN CAN BORROW HIMSELF
OUT OF DEBT.

If you wish for relief you must work for it, economize for it. You must make more and spend less than you did while you were running in debt. You must wear homespun instead of broadcloth, drink water instead of champagne, and rise at four instead of seven. Industry, frugality and economy—these are the handmaids of wealth, and the sure sources of relief. A dollar earned is worth ten borrowed, and a dollar saved is better than forty times its amount in useless gewgaws. Try our scheme, and see if it is not worth a thousand banks and valuation laws.—*Philadelphia Argus*.

REMEDY FOR BITES AND STINGS.

As many of our readers are preparing to travel or to go to the country for the summer, it may be useful to remind them that an ounce vial of spirits of hartshorn should be considered one of the indispensables, as in case of being bitten or stung by any poisonous animal or insect, the immediate and free application of this alkali as a wash to the part bitten, gives instant, perfect and permanent relief, the bite of a mad dog (we believe) not excepted; so will strong ashes-water.—*Hall's Journal of Health*.

THE Delaware peach crop, it is predicted, will be short this year, and not more than a third of the crop is expected. Apples promise but little better.

HAIR STANDING ON END.

THE earliest notice of this fact will be found recorded in Job iv. 13, 14, 15:—“In thoughts from the visions of the night, when deep sleep falleth on men, fear came upon me, and trembling which made all my bones to shake. Then a spirit passed before my face. *The hair of my flesh stood up,*” etc. The Rev. Dr. Andrews, of Beresford Chapel, Waltham, told me he once saw a remarkable illustration of this result from the same cause—excessive fear. William Prohert, who had been concerned in the murder of Weare, for which Thurtell was hanged in 1824, was indicted at the Old Bailey, in 1825, for horse-stealing, and being found guilty June 28th, was there executed. Dr. Andrews had been requested to attend this man, and found him in a state of stupor which prevented reflection, almost, indeed, perception; but on the morning of execution his mind cleared, and he was anxious to listen and join in the prayers. On leaving the cell, and going to the room where he was pionioned, he became somewhat excited, and the instant the executioner put the cord to his wrists to bind his hands, his hair—long, lanky, weak, iron-gray hair—arose gradually and stood perfectly upright, and so remained for some time, and then as gradually fell down. The fact is accounted for from the circumstance that the blood retires to the heart, and the extremities being left without due circulation, “the skin contracts, and the effect is to raise the hair.” But this I doubt. That such is the result of sudden fear, and that it has been known for ages, is very certain.—*Notes and Queries.*

PRESERVING GRAPES.

CHARLES CAMPBELL, of Aurora, Cayuga Co., N. Y., communicates to the *American Agriculturist* the following method of preserving grapes:

“When they are fully ripe, suspend the basket by a strap or cord passed around the neck, thereby giving liberty to both hands for picking; with one hand hold the cluster, and with the other remove it from the vine; remove from the clusters all unripe or decayed fruit, and deposit them in the basket until it is filled. (I use a market basket that will hold about a half bushel.) Carry the grapes thus gathered to the place for packing. I use boxes about

36

two feet square by six inches deep in the clear, with covers made to shut tight. In packing, lay a newspaper on the bottom of the box, then a layer of grapes, then a paper and second layer of grapes, which, when closely packed, fills the box; set in some dry, airy place, with the cover off, and let the box remain open for ten days, or until the sweating process is passed; then close the box and set it in the fruit-room, cellar, or garret, any place where they will not freeze, or which is not extremely damp.

“Grapes packed as above directed, will open at any time during the winter or spring following as fresh as when packed. The only secret or mystery is, that the moisture which spoils the fruit when packed in saw-dust and other absorbents, passes off during the ten days that the box remains open, instead of being absorbed, to ultimately mold and spoil them. So perfect has been my success, that I have more confidence in the preservation of the grape than any other fruit. I use shallow boxes for packing grapes, that the moisture may more readily escape, and that the first layer in the bottom may not be crushed by the weight above.”

LIME AND YELLOW FEVER.

An acquaintance of ours, who some years ago worked at the business of brick masonry in New-Orleans, informed us a few days since, that it was often remarked while he was in the city that four carpenters died of yellow fever where one brick mason did, and that the latter were more exposed to the sun, and under ordinary circumstances would be more liable to take the fever than the former. He says the difference in favor of brick masons was attributed to their working so much in lime.—*Planters' Banner.*

A CONSOLATION FOR TEA-DRINKERS.

NOTWITHSTANDING all that has been said about tea being “a slow-poison,” the Chinese assert that the man who drinks tea in sufficient quantities may live to a hundred years. The Celestials take it very hot.

But the Celestials have not shown so much wisdom of late as to entitle their opinions to any great respect.—ED.



THE STALLION "MORGAN HUNTER."

THIRD NATIONAL
EXHIBITION OF HORSES,
HAMPDEN PARK GROUNDS,
SPRINGFIELD, MASSACHUSETTS,

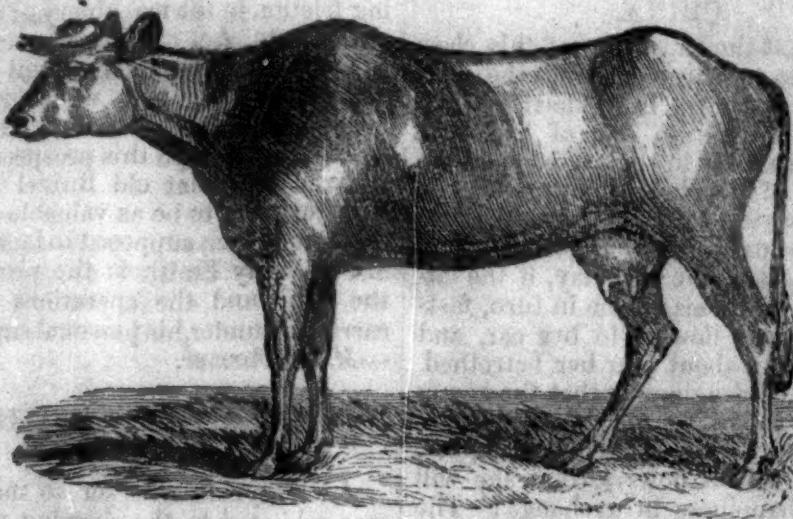
Sept. 14th, 15th, 16th and 17th, 1858.

[S] A SPORTING young lady says, "If 'the course of true love never does run smooth,' why don't they water it, and roll it regularly so many hours a day, until they get the course so smooth that any donkey could run upon it?"

[S] The steamship *Leviathan* has been rebaptized, and is now the *Great Eastern* again.

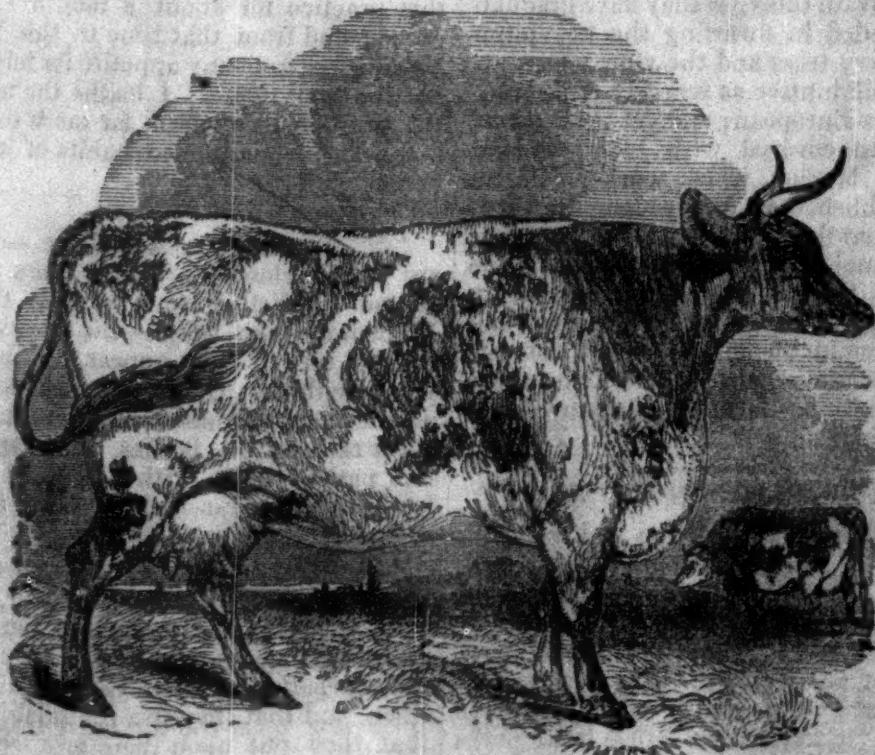
LET the society thou frequentest be like a company of bees gathered together to make honey, and not of wasps, which do nothing but hum, devour, and sting.

[S] What a blessed change for society it would be, if all the numerous rascals now upon the turf were under it instead!



Such objects as the above, it is to be hoped, will not become widely disseminated among us. Cows having the size and general appearance of the one below, are not uncommon among our native stock. Without undertaking to decide whether it is wise to expend much more money in importing the high bred cattle of England, we may say that it is quite possible to raise our native stock to a high degree of excel-

lence, equal for milk to any in the world, as good as any other, if not better, for work, cattle that no farmer or herdsman need be ashamed of; and all that is required is the application of a few common sense principles in pairing, in rearing the young, and in feeding and properly protecting in winter, no frightful expense necessary, and no very long time to intervene before the accomplishment of the object.



test be
together-
wasps,
our, and

for so
numerous
under it

THE RIVER POPULATION IN CHINA.

IN harvest-time any man of this class who wishes to marry goes into the next field, and gathers a little sheaf of rice, which he fastens to one of his oars. Then, when he is in the presence of the tanka girl of his choice, he puts his oar into the water, and goes several times round the boat containing the object of his affections. The next day, if the latter accept his homage, she in turn, fastens a bunch of flowers to her oar, and comes rowing about near her betrothed. The sheaf of rice signifies that the young man undertakes to toil laboriously to maintain her he loves. The girl replies, by the bunch of flowers, that she will give him happiness in exchange! The relations then assemble in the young girl's bark. Some songs are sung, and the marriage is consecrated!—*Inside of Canton*, by Dr. Yean.

JAPANESE GARDENERS.

THE gardeners in Japan display the most astonishing art. The plum tree which is a great favorite, is so trained and cultivated that the blossoms are as big as those of dahlias. Their great triumph, however, is to bring forth plants and trees into the compass of the little gardens attached to the houses in the cities. With this view they have gradually succeeded in dwarfing the fig, plum and cherry trees and the vine to a stature so diminutive as scarcely to be credited by a European; and yet those dwarf trees are covered with blossoms and leaves. Maylon, whose work on Japan was published at Amsterdam, in 1830, states that the Dutch agent of commerce, in Naganei, was offered a snuff box one inch in thickness and three high, in which grew a fig tree, a bamboo, and plum tree in bloom. Some of the gardens resemble pictures, in which nature is skillfully modeled in miniature—but it is living, natural.—*Portland Trans.*

PLUMBAGO IN MAINE.

We learn that a large and valuable deposit of Plumbago or Black Lead, has been discovered in Buzzel Mountain, in the town of Newry, Oxford Co. Several tons have already been mined and found to be of an excellent quality. Men are now engaged in taking out the mineral ore for market. This article is at present used in large quantities for pencils,

for burnishing cast iron, and for diminishing friction in the machinery of railroads, steamboats, &c. The prospect is that this deposit of the mineral will prove an important one, and, of course, very beneficial to the district in which it is located. We hope this prospect may be realized, and that old Buzzel Mountain may turn out to be as valuable as it has heretofore been supposed to be worthless. Mr. H. Clay Smith is the proprietor of the mine, and the operations in it are carried on under his personal supervision.—*M. E. Farmer.*

TO CURE THE APPETITE FOR TOBACCO.

A clergyman who for so many years was addicted to the chewing and smoking of tobacco, but who has entirely abstained from the weed for over thirty years, communicates to the *Independent* the method of cure which he adopted. We copy it, hoping it will prove effectual in many cases.

"I had a deep well of very cool water, and whenever the appetite craved indulgence, I resorted immediately to fresh drawn water. Of this I drank what I desired, and then continued to hold water in my mouth, throwing out and taking in successive mouthfuls, until the craving ceased. By a faithful adherence to this practice for about a month I was cured; and from that time to this have been as free from any appetite for tobacco as a nursing infant. I loathe the use of the weed in every form far more than I did before I contracted habits of indulgence."

WHAT THEY ARE LIKE.—Men are like bugles—the more brass they contain the farther can you hear them. Women are like tulips—the more modest and retired they appear, the better you love them. Gamblers are like condemned darkies gnashing their teeth—always rattling the ivories. Printers are like patient wives with dissipated husbands—they are used to "setting up."

WOODEN nutmegs are thrown in the shade by a Boston huckster, who painted his unripe peaches a blushing red to attract purchasers! It is said that the ladies are employed in painting them, and that they use the same paint that they put upon their own cheeks. There must be a rush for those peaches.

CONSTANT EMPLOYMENT.

THERE is great good sense in the following, which we cut from the *Country Gentleman*.

The man who is obliged to be constantly employed to earn the necessaries of life, knows not the unhappiness he prays for, when he desires wealth and idleness. To be constantly busy is to be always happy. Persons who have suddenly acquired wealth, broken up their active pursuits, and begun to live at their ease, waste away and die in a very short time. Thousands would have been blessings to the world, added to the common stock of happiness, if they had been content to remain in a humble sphere, and earned every mouthful of food that nourished their bodies. But no; fashion and wealth took possession of them, and they were completely ruined. They ran away from peace and pleasure, and embraced a lingering death. Ye who are sighing for the pomp and splendor of life, beware! Ye know not what ye wish. How is it possible for you to be happy while you possess a deceitful heart? No situation, however exalted; no wealth, however magnificent; no honors, however glorious, can yield you solid enjoyment, while discontent lurks in your bosom. The secret of happiness lies in this—to be always contented with your lot, and never sigh for the splendor of riches, or the magnificence of fashion and power. Persons who are always busy, and go cheerfully to their daily tasks, are the least disturbed by the fluctuations of business, and at night sleep with perfect composure. The idle and the rich are seldom contented. They are peevish, fretful, irascible. Bid them good morning and they scowl. Nature and art have few attractions for them. They are entirely out of their view. While in this state, the springs of life are rusting out, and the decay of death has commenced undermining their constitutions.

HOW TO WATER PLANTS.

As a rule, water should never be given until the further withholding of it would be detrimental to the plants. *Habitual* watering does, in the majority of cases, more harm than good. Plants left to battle with drought send their roots down deep in search of moisture, and when rain does come they benefit more by it than those that have regular

waterings all along. If the ground is dug deeply, and kept in good heart, plants that have once got established will bear drought for almost any length of time; but things lately planted, and that have not had time to "get hold," must be kept supplied, or their beauty may vanish for half the season. Succulent vegetables, too, which ought to be kept growing quick, must have abundance, and, of course, plants in pots must, of necessity, have sufficient. There are two important points to be attended to in giving water; one is to expose the water to the sun before using it, to render it soft and warm, and the other is to give a thorough soaking at once, sufficient to keep the ground moist a week. Supposing the supply to be limited, but regular, the best way of economizing both water and time is to take the garden piece by piece, watering each piece thoroughly every evening, and then beginning again as at first.—*Floral World and Garden Guide*.

THE TERMINUS OF THE ATLANTIC CABLE AND SURROUNDING SCENERY.

ALL who have visited Trinity Bay, New-Foundland, with one consent allow it to be one of the most beautiful sheets of water they ever set eyes upon. Its color is very peculiar—an inexpressible mingling of pure blue ocean with the deep evergreen woodlands, and the serene blue sky. Its extreme length is about eighty miles; its breadth about thirty miles, opening boldly into the Atlantic on the Northern side of the Island. At its southwestern shore it branches into the Bay of Bull's Arm, a quiet safe and beautiful harbor, about two miles in breadth, and nine or ten in length, running in a direction northwest. The depth of the water is sufficient for the largest vessels. The tide rises seven or eight feet, and the bay terminates in a beautiful sand beach. The shore is clothed with dark green fir-trees, which mixed with the birch and mountain ash, presents a pleasing contrast.

 In an old French dictionary, *liberty* is described to be a word of three syllables. The lexicographer dare not say more.

 Why is a vine like a soldier? Kase it is trained—has tendrils—and it shoots.

CHILDREN'S CORNER.



Of all the scenes in this world, nothing is more beautiful than that of parents teaching their children, mingling amusement with instruction, and making home the most delightful and the most profitable to both. Parents have lived a little longer than their children; they are supposed to know more; they can impart knowledge; and mutual love makes the giving and the receiving of it a delight. Papa can pull Nanny's curls, make her laugh like a sprite, and yet impress some important lesson that she will remember forever. And mama can tend the baby and give a turn to Jimmy and Kitty's minds that will affect their character when she has gone the way of all the earth. Lessons how to live, how

to be happy in this life, and what to expect beyond, can be inculcated while the child is yet of too tender an age to be a fit subject for the sterner discipline of the school.

But what have we on the opposite page? Let us see.

This makes us think of our Ciblo, (pronounce the *c* like *th*; it is Spanish, and the Spaniards pronounce *c* in that way before *e* or *i*.) He is a great dog, but not very old yet, and has not learned not to do mischief. The other day he tore up a five dollar book. The next day he tore in pieces one volume of a set that were worth twice as much. Shortly after he made disappear the beefsteak designed for the breakfast o



the whole family. This time he knew he had done wrong, for he skulked away and hid himself. Whip him, whip him, they all said. Couldn't whip any-



thing that loves us so well as Ciblo, and so the beefsteak disappeared again soon. Too tender-hearted to train a dog. He must be sold. But there on the foregoing page is another picture. Does the old man look like one of the founders of this Republic, and which?

In our last cut the ends of life meet. The old man loves his daughter's children just as well as he did his own. How happy they all look! Old age can do something to gratify the children, and children can do much to make their grand-parents happy. We advise the children to read "Grandpa's Letters to Boys." They are as good for the girls as for their brothers. Here we are only trifling with you; but Grandpa is an excellent man, in one of the Southern States, and he is telling something every month, which is worth reading twice over and remembering. Suppose the children should read it once by themselves, and then read it aloud to their mother, and see whether she thinks it is all true.

ENGLAND AND AMERICA IN 1813.

THE following is from the London *Times* of March 18, 1813:

"The public will learn, with sentiments which we shall not presume to anticipate, that a third British frigate has struck to an American. This is an occurrence that calls for serious reflection—this and the fact stated in our paper of yesterday that Lloyd's list contains notices of upwards of five hundred British vessels captured in seven months by the Americans. Five hundred merchantmen and three frigates. (Aye, and three sloops of war.)

"Can these statements be true; and can the English people hear them unmoved? Any one who had predicted such a result of an American war this time last year, would have been treated as a madman or a traitor. He would have been told, if his opponents had condescended to argue with him, that long ere seven months had elapsed the American flag would be swept from the seas, the contemptible navy of the United States annihilated, and their maritime arsenals rendered a heap of ruins.

" Yet down to this minute not a single American frigate has struck her flag. They insult us and laugh at our want of enterprise and vigor. They leave their ports when they please, and return to them when it suits their convenience; they traverse the Atlantic, they beset the West India Islands, they advance to the very chops of the channel, they parade along the coasts of South America—nothing chases, nothing intercepts, nothing engages them, but to yield them triumph."

HOW TO MAKE TOMATO FIGS.

POUR boiling water over the tomatoes in order to remove the skins; then weigh them and place them in a stone jar, with as much sugar as you have tomatoes, and let them stand two days; then pour off the syrup, and boil and skim it till no scum rises. Then pour it over the tomatoes and let them stand two days, as before, then boil and skim again. After the third time, they are fit to dry, if the weather is good; if not let them stand in the syrup until drying weather. Then place on earthen plates or dishes, and put them in the sun to dry, which will take about a week, after which pack them down in small wooden boxes, with fine white sugar between every layer.

BOOK NOTICES, ETC.

THE FARM, a Pocket Manual of *Practical Agriculture*, or how to cultivate all the Field Crops. By the Author of "*How to do Business*," "*How to Behave*," etc. New-York, Fowler & Wells, Publishers, 308 Broadway. 1858.

The subject of this volume of 154 well filled pages are;—1st, soils; 2nd, manures; 3rd, Rotation in crops; 4th, Draining; 5th, Fences; 6th, Agricultural Implements and their Use; 7th, Farm Management; 8th, Farm Crops; 9th, The Orchard.

In treating these subjects, the author has dwelt somewhat upon the fundamental principles of Agricultural Science. In this we think him right; because we believe it to be not so much the duty of the agricultural writer to tell the farmer when and how to do everything, as to give him the knowledge that will enable

him to judge better for himself, when and how to do things, than any one else can judge for him. The object of agricultural works is not to make the farmer dependent on the opinions of others, but to enable him to form sound opinions of his own, and to act independently. This the writer of the book before us seems to have apprehended; and we think he has written well.

His book is in our judgment a valuable contribution towards enabling the farmer to form sound opinions on all subjects pertaining to his calling; and that is the very best thing we can say of this or any other book on the farm. We are sick *ad nauseum* of that kind of agricultural teaching which seems to pre-suppose not only that the farmer is ignorant, but also that he will not, or can not learn, and that therefore some knight of the quill must stand over him, a sort of ever-present monitor, to tell him, morning, noon and night, what to do. It seems to us that were we farming, we would not thank any one to be always telling us to plow twenty inches deep, or to sow rye after corn, or wheat after clover, but would be heartily thankful to everybody who would throw light in our path, adapted to enable us to judge accurately on these and all other subjects. The Messrs. Fowler & Wells' book, if we judge rightly from a hasty perusal, is of that sort which seeks to enlighten the farmer on the great principles of agriculture, leaving the details very properly with him; and for this reason, we repeat, we like it; and we hope it may have a wide circulation. The price in paper, we see, is 30 cents; in muslin, 50 cents; and we assure our readers, without affirming that it is all truth without error, (no human production is,) that it is well worth the money. The subjects on which it treats are at the foundation of all successful farming. If these are well understood, and wisely practiced, the farm interests can hardly go badly.

FIRST LESSONS IN BOTANY AND VEGETABLE PHYSIOLOGY. Illustrated by over 360 wood engravings. By ASA GRAY, Fisher Professor of Natural History in Harvard University. New-York: Ivison & Phinney, 321 Broadway.

A condensed Botany, embracing the Flora of a continent in a few hundred pages, would be one of the dryest books in the world for any but a thorough botanist; and for the farmer, and his wife, and his sons and daughters, it would be as useless as dry, without a teacher at their elbow.

It is not so with Professor Gray's books. The one we noticed in our last is an instructor for everybody, the child and the old man, those taught in schools and those practicing to teach themselves. To the latter it is specially adapted. The same is true of this volume. Its descriptions are so plain, distinct, and to the point, that the child can understand them, and the sage cannot but admire them. The book is not a bundle of hard words, but a treasure of living truths, interesting to everybody; and whatever uncommon words the author is obliged to use, are admirably defined in a glossary at the end; so that the work is complete in itself. One can get all there is in it, and that is a great deal, without recourse to other books, with no other teacher than leafy, flowery nature.

With this book in hand, the garden, the lawn, the field, the hill-side, and the mountain top and valley, are all teachers —are vocal with instructions, not curious merely, but useful, and to none more than to the cultivator of the soil. To say it is "interesting as a novel," does not begin to tell the story. It is a thousand times more interesting to one who has a little more curiosity than a savage, or who can appreciate the useful, or has veneration in him enough to make him love to see and admire God in his works. How we wish our youth could be induced to turn from the reading of useless, always overflowing, deluging fie-

tions, in the two volume novel and the fifty-two sheet newspaper, to the study of Prof. Gray's "First Lessons in Botany and Vegetable Physiology." We have not the least doubt they would be wiser and happier for it, though we have not a particle of that superstition that would object to their occasionally reading a well-written tale.

In naming the price of the first of Prof. Gray's series, we were misled by the publishers' own circular, and stated it at fifty cents, when it should have been seventy-five. The price of this is \$1, and it is richly worth it in a family where children and young people are growing up with the least desire to be intelligent.

STRUGGLES AND TRIUMPHS OF RELIGIOUS LIBERTY; An Historical Survey of Controversies pertaining to the Rights of Conscience, from the English Reformation to the Settlement of the New-World; By Edward B. Underhill, Esq., London; with an introduction by Sewall S. Cutting. New-York: Sheldon, Blakeman & Co. 1858.

No subject connected with civil, or ecclesiastical history, or with both, as the above is, could possess a higher interest. In forming an estimate of the early settlers of this country, if we would do them justice, we must consider the state of things from which they came, their struggles for the rights of conscience, their escape from the old world and their installment in the new, just at a time when mankind had not learned to think, (few have learned it yet) "you may possibly be right in your religious opinions; possibly I may be wrong in mine." That our fathers should have had a spasm or two of the old persecuting spirit which they had escaped, and that they should have felt a touch of the witchcraft mania, is not so much to be wondered at, as that they should have had both these diseases so much lighter than the nations they had just left behind them in Europe. The reading of such works as this, will throw much

light on the early history of our own country as well as that of England, and help to a juster estimate of our forefathers.

WELL'S NATURAL PHILOSOPHY; for the use of Schools, Academies and Private Students; Introducing the Latest Results of Scientific Discovery and Research; Arranged with reference to the Practical Application of Physical Science to the Arts and Experiences of every day Life, with 375 engravings. By David A. Wells, A. M., Author of "The Science of Common Things," Editor of the "Annual of Scientific Discovery," "Knowledge is Power," &c. New-York: Ivison & Phinney, 321 Broadway. Chicago: S. C. Griggs & Co., 111 Lake St.

From the talents of the author and the character of the house by which this work is published we should expect a good book for schools, for academies, and for all who are desirous of improvement, in practical, useful knowledge; and such it is.

THE NEW-YORK PULPIT IN THE REVIVAL OF 1858, A Memorial Volume of Sermons. New-York: Sheldon, Blakeman & Co. Boston: Gould & Lincoln.

This book contains a sermon by Rev. James W. Alexander, entitled *The Holy Flock*; one by Rev. Rufus Clark, on *Religious Conversation*; a third by Rev. Theo. L. Cuyler, on the subject, *Past Feeling*; and twenty-two others on various and important topics, by as many of our most earnest and eloquent preachers. It contains about 400 pages, and is put up in good style, especially for elderly people and those having weak eyes.

THE LITTLE COMMODORE. By MAY RAMBLER. Illustrated. New-York: Sheldon, Blakeman & Co., 115 Nassau-st. pp. 300. 18mo.

This is a nice little book of travels in Spain, Italy, etc., etc.; prettily and usefully illustrated. Our boys who have read it, (we have not,) say it is full of interest and instruction. Their opinions on such a matter are worth quite as much as ours would be.

READERS OF THIS NUMBER, you will perceive, by the last page of our cover, that we have varied our terms a trifle, making them in no case less favorable to the subscriber, but in some cases more favorable. Our object is to secure voluntary agents for each locality, and thereby to avoid the expense of traveling agents, as canvassers and collectors. The rates we now adopt, and which we mean shall be permanent, apply to old subscribers renewing as well as to new subscribers; and wherever there are already subscribers at any Post-office, new subscribers may have the benefit of that fact; as, in case there are two or more subscribers, (of which the Postmaster will always give information,) then new subscribers can come in at one dollar each; and we can afford the work at that, if sent in bundles, but not otherwise. Please see that our terms are understood by your friends, that our bundles, where now small, may be enlarged. To send in large bundles at a low price is what we aim at? If you like the aim, please help on.

THE WEATHER, CROPS, PROSPECTS, ETC.,

SELECTED FROM VARIOUS SOURCES.

THE COTTON CROP IN 1858.—In conversation last week with a gentleman who has very recently traveled over nearly the whole cotton-growing section of United States, he expressed the opinion that if present prospects are verified, the crop will be beyond all precedent in quantity. The idea of a deficit of 400,000 bales in the South-west, resulting from high water, he considered altogether delusive, and maintained that he had been in no county of that section where present anticipations did not fix the quantity of cotton grown above what could be gathered. The corn crop everywhere was more than abundant.—*Macon, Ga., Telegraph.*

The soil of Kansas is such that it will stand the drouth better than any land I ever saw before; and the continued rains of this season prove it to be remarkable for producing when it rains most of the time. In Illinois and Indiana, farmers were put back very much by the rains in the Spring—cornfields all afloat—could not plant till very late. Here, we can plow in less than a week

after it rains. I have planted corn the next day after a rain, and found the land sufficiently dry to insure its coming. The corn crop will be very good here this season. Potatoes looked rather slim for a time, after the bug attacked them; but the bugs were very short-lived, and the potatoes overcame their bad looks; and now if they do not rot, I think there will be an abundance. Some of the early planted have commenced rotting, but we hope it will not be a general thing. It seems that winter wheat does much better than spring sowing, as almost all of the late spring wheat rusted so badly as to make it nearly worthless.—*Ind. Republican.*

Topeka, K. T., Aug. 2, 1858.

TALL CORN.—A correspondent of the *Boston Transcript*, writing from Lawrence, Kansas, says he has stalks of corn in his garden fourteen feet high, on which the base of the lowest ears is six feet from the ground.

CROPS IN KENTUCKY.—William Warfield, Esq., writes from Lexington, Ky., August 21st: — “We have had a slight rain to-day—the first we have had in this immediate vicinity for four weeks yesterday. Our grass is very much burned up, and the corn crop will be cut short somewhat, but we will still make a very good crop. Our wheat is going to market quite freely at from eighty to ninety cents for the best article, which is not a prime one, and not turning out what we had hoped—I would say not half of last year’s yield.”

CROPS IN MICHIGAN.—A writer at Cascade, Mich., under date of Aug. 12th says:—Great are the disappointments of the tillers of the ground in general, when they learn from the machines as they go from farm to farm, showing that the general average of the wheat crop in this section, will not exceed ten bushels per acre. We cannot show as large plump wheat as we could in the harvest of 1857, for we have not been slighted, but have been visited as brother farmers have in other sections of country with the rust and weevil, which have been very injurious to our wheat crop, entirely destroying fields which promised fair ten days before harvest and abundant yield. Oats are also very light, being injured by the exceeding warm and dry weather which lasted with us five suc-

cessive weeks, the thermometer varying from 80° to 100° above zero, everything withering beneath the sun's scorching ray, even man and beast falling victims to the extreme heat. Yet we should not grumble nor complain, but with confidence trust in Him who "doeth all things well." Corn now promises a good yield; as we have been blessed with showers of rain, it has unrolled its leaves, lifted its drooping head, and if blessed with seasonable showers during its maturing process, a good yield will be ours. Potatoes are also very much injured by the drouth, but we are still in hopes of a good crop, if the weather is favorable.

—
THE CROPS.—The *Nashville News*, of Tuesday, says:

The farmers—the people who ought to know—tell us that there was never a better promise of an abundant yield of corn than at present. Middle Tennessee alone could support the whole population of the State, and leave all the corn produced in the Eastern and Western divisions for exportation.

The cotton in all of Middle Tennessee, where any is planted, is quite promising, and if the fall shall prove to be a late one, the yield will be largely over an average; while an early frost would most probably cut it quite short.

The tobacco crop looks unusually well, and up to the time of cutting the early plants, promised to afford a large yield, but the frequent rains have washed much of the gum off, and leaves will consequently be very light. This, however, we hope will not apply to that which remains to be cut, though the showers continue to fall in great abundance almost daily in some of the largest tobacco growing districts in Middle Tennessee. Our opinion is nevertheless that the yield of tobacco will be more than an average one, and that the weed will prove better than it has been for several years.

—
THE New-Orleans *Picayune*, of Saturday, 21st, says:

We have had another week of uniform heat, the thermometer ranging at midday from 93 to 98 deg. A heavy shower fell on Sunday, but from the country we do not hear of any rain, and some complaints reach us of this continued absence of moisture. This is more the case in the sugar region. From the

cotton growing districts there are some murmurs, but they seem to be drowned in the glowing reports of the generally healthy progress of the plant. The bolls are opening rapidly.

One of the editors of the *Memphis Ledger* gives a very flattering account of the planting interest in the river counties, notwithstanding the late overflow. Very large numbers of the plantations were not submerged at all, and the crops growing on them are fine and promising.

—
CROPS IN MARYLAND.—The *Port Tobacco Times* has the following in relation to the crops in that vicinity:

The drought still continues with us, and it is really heart-sickening to behold the face of the country for several miles around our village. Vegetation of all kinds looks parched, and the prospect for both corn and tobacco is of the gloomiest character. With the exception of two or three light showers, we have had no rain to benefit the crops much for nearly two months.

We understand that one of our farmers in the neighborhood of Middletown, after having thrashed and measured the wheat from a field, upon which he had sown nine tons of guano, found the yield to be fifty-one bushels! This will go to prove that the complaints we have heard of the failure of the wheat crop of this county are not much exaggerated.

—
CROPS.—As the season has now arrived when we can come to some reasonable estimate of the cotton crop, we have made diligent inquiry, and find that our late August rains have developed the worm, and that it is doing great damage on a majority of plantations. If we have as much rain the next two weeks as we have had the last two, the crops in the prairie will be cut off at least half, as intelligent planters give us to understand. The corn crop, taken generally, is pronounced an average one.—(Aberdeen Miss.) *Conservative*, 14th.

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CROPS IN SUFFOLK CO., L. I.—The crops here have been about an average so far (August 17). The wheat is quite good, and rather more than an average crop; the hay unusually abundant; the oats very light and short, but we shall probably have about three-quarters of an average crop. The corn is looking unusually well, and will doubtless give

a good yield. The grasshoppers are very numerous, and will, we fear, destroy all the late pasture, and perhaps injure the corn. We find no means of destroying them except by keeping turkeys, which feed on them and do well.—*Country Gent.*

THE CROPS.—The crops in Vermont, almost of all kinds, promise an abundant yield. The fruit crop is the lightest, but that even, it is believed, will exceed, on the average, the crops of the last two years. Vermont ever appears glorious in her summer dress, and especially so this summer, owing to the superabundance of showers, which has clothed her green hills with an extra thick garb of vegetation. The grass in all the pastures is still up to the eyes of the sober feeding cows. There is more hay than the stuffed barns will hold, and the potato, oat and cornfields are swamps of vegetable matter. If nothing untimely occurs, three and four tons of hay, 50 bushels of oats, 75 to 100 of corn, and 300 of potatoes, to the acre, need be no rarity in Vermont.

THE MARKETS.

We are sorry to say that there is little in the state of our markets encouraging to the farmer.

BEEF MARKETS—There has been the past week an over supply of cattle offered, and prices have been somewhat depressed.

FLOUR AND MEAL—The market is somewhat unsettled for State and Western. Rejected brands can be procured on easier terms; while sound and desirable lots are held firmly. The demand is moderate, mainly for home use. Sales 10,000 bbls. including rejected Superfine State at \$4 a \$4 15, chiefly at \$4 05 a \$4 15; do. extra do. at \$4 30 a \$4 65; standard Superfine at \$4 75 a \$5, chiefly at \$4 75; do. extra do. at \$5 25 a \$5 50, chiefly at \$5 50, and other grades within our range.

GRAIN—Wheat is very dull, and prices of new Southern tend strongly downward. Sales 8,500 bushels, including good White Canadian, at \$1 28; good new White Southern, at \$1 47½ a 1 50; inferior to very good new Red Southern, at \$1 15 a 30; and badly shrunken Southern, at 90c. per bush.

CORN is heavy, and Mixed is lower. Sales 32,500 bushels, at 70½ a 74½c. for unsound mixed Western; 77c. a 84c. for poor to good do., do.; and 86c. a 90c. for White Southern per bush.

RYE is more plenty, and is much depressed. Sales 14,400 bushels at 74c. for heated, and 75c. a 76c. for ordinary fair, per bushel. Good to strictly prime Rye is quoted at from 77c. a 78c. per bushel.

BARLEY AND OATS—Nothing new in Barley or Barley Malt. Oats are in demand, and are quoted somewhat firmer. Included in the sales were 4,000 bushels Chicago at 52½c. a 55c. per bushel; Western, 52½c. a 55c.; State, 50c. a 53c.; Jersey and Pennsylvania, 43c. a 46c.; Southern, 32c. a 40c., per bushel.

HAY—Sales 900 bales at 45a 50c. per 100 lbs.

HOPS—Are held above the views of buyers. No important movements transpired to-day.

PROVISIONS—Pork is in good request at strengthening prices. Sales 1,400 bbls. at \$17 25 a 17 35 for Mess, and \$14 90 a 15 for Prime, per bbl. Cut Meats in fair demand, at 8½ a 8¾c. for Hams, and 6½ a 6½c. for Shoulders, per lb. Bacon is in request, including dry Salted Middles at from 9½ a 11c.; Smoked Middles at 9½ a 11c.; and clear do. do. at 10½ a 11½c. per lb. Smoked Shoulders at 7½ a 7½c. Smoked Hams, 10½ a 11½c. Lard is in demand at full rates; 300 tcs. and bbls. changed hands in lots, at 11½ a 11½c. for fair to prime, per lb. Beef is quiet, yet firm; sales 200 bbls. in lots, at \$13 75 a 14 50 for repacked Western Mess; \$15 a 15 50 for ext'd do.; \$11 50 a 12 for Country Mess, per bbl. Prime Mess Beef, \$20 a 22 per tc. Beef Hams, \$19 a 20 per bbl. Butter is in demand at 12 a 19c. for Ohio; 14 a 21c. for common to good State, and 22 a 28c. for prime to choice State, per lb. Cheese is selling moderately at 3 a 8c. for common to prime, per lb.

TOBACCO—The market has assumed a more firm aspect, and we have to report, since Tuesday last, sales of 113 hhds. Kentucky at 8 a 13c.; 136 bales Havana at 30 a 37c.; 185 bales Cuba, and 75 bales Cienfuegos, on private terms; 143 cases Seed Leaf at 11 a 18c.; 12 cases Florida at 12½c.; and 146 ceroons South American, for export, on private terms.

BUSINESS DIRECTORY, ETC.

To ADVERTISERS.—Persons having fine Stock, Agricultural Implements, Labor-saving Machinery, Fruit and Ornamental Trees, Seeds, Books for the farmer, &c., &c., to dispose of, would find it for their interest to advertise in the *Farmer's Magazine*.

TERMS ;—For anything less than a square, the character of the advertisement being unexceptionable, 10 cents a line for each insertion.

For a square of 14 lines, (or a displayed card or notice occupying two inches up and down the column) \$1 for each insertion less than six. \$5 dollars for six insertions; \$9 for twelve inser-

tions; and for \$10 the square will be kept in one year and the work sent to the advertiser.

For more than a square, in the same proportion, payment in all cases to be in advance.

All persons indebted to this office for the Plough Loom and Anvil, or for Advertising in the same, or in the American Farmer's Magazine, are requested to forward the amounts to us.

Money may be sent at our risk if enclosed with suitable precautions.

Address J. A. NASH,
7 Beekman St., N. Y.

Advertisements.

American and Foreign Office
for Procuring Patents.

C. A. DURGIN.

SOLICITOR OF PATENTS.

335 Broadway, New-York.

Rejected applications especially attended to. Refer to this editor of the Journal. Sept. 9t.

THE REGULAR MAIL LINE via STONINGTON, for BOSTON and PROVIDENCE—Inland Route—the shortest and most direct, carrying the Eastern Mail.

The steamers PLYMOUTH ROCK, Capt. Joel Stone, and C. VANDERBILT, Capt. W. H. Frazee, in connection with the STONINGTON and PROVIDENCE, and BOSTON and PROVIDENCE RAILROADS, leaving New-York daily (Sundays excepted) from Pier No. 2, North River, first wharf above Battery-Place, at 8 o'clock P. M., and Stonington at 8:30 P. M.; or on the arrival of the mail train which leaves Boston at 5:30 P. M.

The C. VANDERBILT, from New-York Monday, Wednesday and Friday; from Stonington Tuesday, Thursday and Saturday.

The PLYMOUTH ROCK, from New-York Tuesday, Thursday and Saturday; from Stonington Monday, Wednesday and Friday.

Passengers proceed from Stonington per railroad to Providence and Boston in the Express Mail Train, reaching said places in advance of those by other routes, and in ample time for all the early morning lines connecting North and East. Passengers that prefer it, remain on board the steamer, enjoy a night's rest undisturbed, breakfast if desired, and leave Stonington in the 7 A. M. train, connecting at Providence with the 11:15 A. M. train for Boston.

A baggage-master accompanies the steamer and train through each way.

For passage, berths, state-rooms or freight, apply on board the steamer, or at the Freight Office, Pier No. 2, North River, or at the office, No. 10 Battery-
Aug.

A Wonderful Pump!

"By invitation, we, with many others, visited an exhibition of a Pump, in this city, on the 26th of May, and hereby certify that we saw it worked, first by two men with both hands, then with one hand each, and then by one man alone, to the height of *one hundred and fifteen feet perpendicular!* and this with *ease, regularity and rapidity*. It raised water from the bottom to this height in thirty seconds, and discharged some fifteen or twenty gallons per minute, and we see no reason why water may not be raised by two men one hundred and fifty or more feet, with certainty and regularity.

"Wm. H. Neilson, Pres. of the Board of Education; B. M. Whitlock, of B. M. & E. A. Whitlock & Co.; D. S. Ross, of Ross, Falconer & Co.; John Elliott, of Riggs & Co., and T. J. Coleman, Bankers, Wall street; E. S. Halsted, of Halsted, Stiles & Co.; F. C. Cooper, of A. H. Gale & Co.; John Powers, Machinist and Model Maker; Henry M. Platt, of Platt & Brother; Thos. P. Howe, of Fowler & Wells; A. Van Cleef, Iron Founder; Herman Winter, of Morgan Iron Works; A. B. Clark, of Sun Mutual Insurance Company; J. Q. Brown, of Board of Underwriters," and one hundred others.

New-York, June 1, 1858.

This is a horizontal double-acting force pump, working by hand and lever power, and warranted to work in all depths under 150 feet. For drawings and prices address

JAMES M. EDNEY, 147 Chambers Street,
July 17. New-York.